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AUTHOR Blamick, Wesley E.
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ABSTRACT

The 1983-84 evaluation of the secondary school science program in Orange County Public Schools, Florida was conducted to provide statistical data for use in program improvement. The data in the report were designed for use by district-based and school-based personnel. The purpose of the evaluation was to determine the extent to which secondary school science program objectives were met. In the report, the six evaluation questions are presented with the results of the study. A complete description of the procedures employed in conducting the evaluation discuss: the literature review; staff input; presentation of evaluation plans; population interviewed; data collection, compilation, and presentation schedule; and data analysis. Conclusions and recommendations for both junior high school and high schools cover six areas: (1) curriculum and students; (2) teachers; (3) student performance, classroom management, and instructional procedures; (4) facilities, equipment, supplies, and other resources; (5) personnel support, and (6) district and community resources. Appendices include both combined and individual school data summaries, major subject area data summaries, and sample principal and teacher questionnaires. (DWH)

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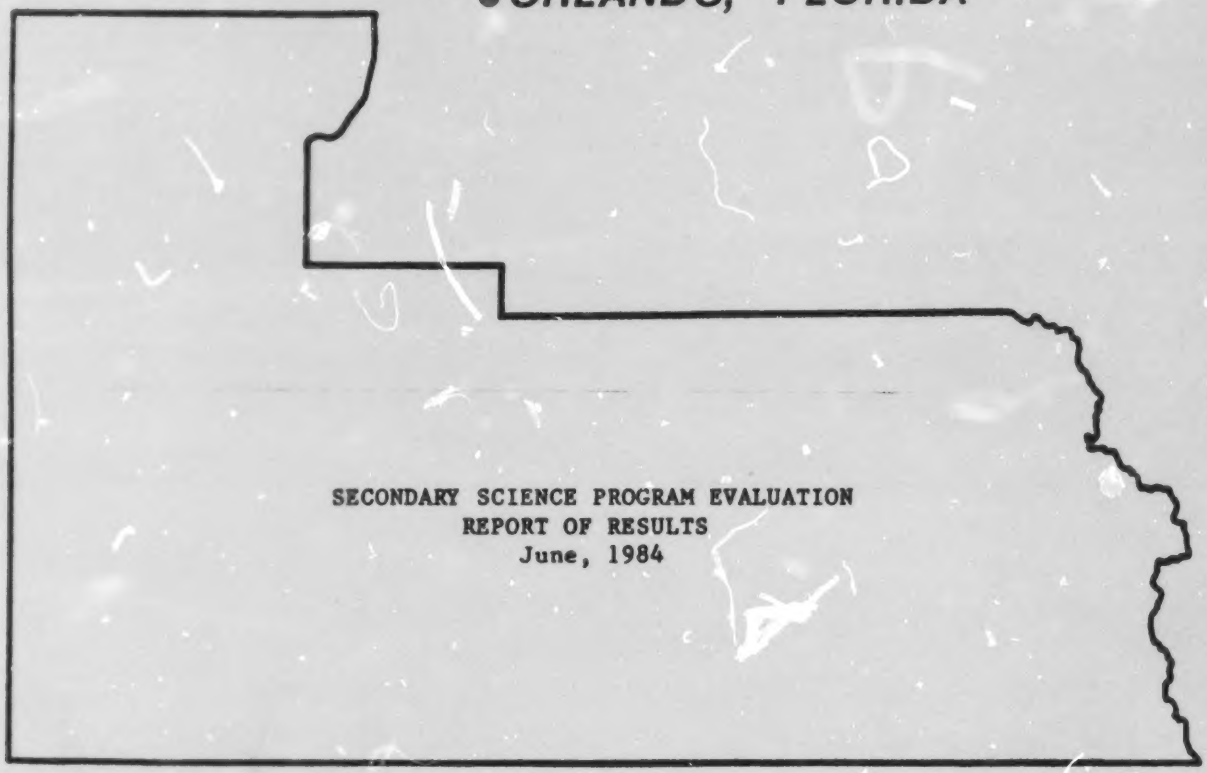

SECONDARY SCIENCE PROGRAM EVALUATION
REPORT OF RESULTS
June, 1984

THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA

TESTING AND PROGRAM EVALUATION SECTION

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Department of Planning and Governmental Relations

Program Evaluation Section

SECONDARY SCIENCE PROGRAM EVALUATION
REPORT OF RESULTS
June, 1984

EVALUATOR
WESLEY E. BLAMICK
SENIOR MANAGER FOR
PROGRAM EVALUATION

PROGRAM CONTACT
DALLAS W. MADDRON
PROGRAM CONSULTANT
SECONDARY SCIENCE

ORANGE COUNTY PUBLIC SCHOOLS • ORLANDO, FLORIDA

James L. Schott, Superintendent of Schools

Joseph J. Marinelli, Associate Superintendent
for Planning and Governmental Relations

Jacquelyn H. Still, Senior Administrator
for Program Evaluation

TABLE OF CONTENTS

	Page
Executive Summary	iii
SECONDARY SCIENCE PROGRAM EVALUATION REPORT OF RESULTS	1
PURPOSE	1
RELATED DISTRICT GOALS	1
PROGRAM DESCRIPTION	1
PROGRAM OBJECTIVES	1
EVALUATION QUESTIONS	2
ASSESSMENT INSTRUMENTS	2
Interview Schedules (Questionnaires)	2
Achievement Tests	2
PROCEDURES	3
Literature Review	3
Staff Input	3
Presentation of Evaluation Plans	3
Population Interviewed	4
Data Collection, Compilation, and Presentation Schedule	4
Data Analysis	5
RESULTS	6
Question I: Was a secondary science curriculum which served advanced, average, and low ability students at every grade level 7-12 provided?	6
A. Junior High Schools, N=19	6
B. High Schools, N=9	7
Question II: Was the secondary science program staffed with qualified teachers who strove to improve their skills and knowledge in science teaching?	7
A. Junior High Schools	7
B. High Schools	8
Question III: Was student performance in science improved and were effective classroom management and instructional procedures implemented?	9
A. Junior High Schools	9
B. High Schools	10
Question IV: Were facilities, equipment, supplies, and other resources which are necessary to support a quality instructional program provided?	11
A. Junior High Schools	11
B. High Schools	11
Question V: Was the secondary science program strengthened through support from district-based and school-based personnel?	12
A. Junior High Schools	12
B. High Schools	12
Question VI: Were district-wide and community resources used for the betterment of the secondary science program?	13
A. Junior High Schools	13
B. High Schools	13
CONCLUSIONS	14
I. Curriculum and Students	14
A. Junior High Schools	14
B. High Schools	14

Table of Contents (continued)

	Page
II. Teachers	15
A. Junior High Schools	15
B. High Schools	15
III. Student Performance, Classroom Management, and Instructional Procedures	15
A. Junior High Schools	15
B. High Schools	16
IV. Facilities, Equipment, Supplies, and Other Resources	16
A. Junior High Schools	16
B. High Schools	17
V. Personnel Support	17
A. Junior High Schools	17
B. High Schools	17
VI. District and Community Resources	18
A. Junior High Schools	18
B. High Schools	18
RECOMMENDATIONS	19
I. Curriculum and Students	19
A. Junior High Schools	19
B. High Schools	19
C. Actions Taken	19
II. Teachers	20
A. Junior High Schools and B. High Schools	20
B. Actions Taken	21
III. Student Performance, Classroom Management, and Instructional Procedures	21
A. Junior High Schools	21
B. High Schools	22
C. Actions Taken	22
IV. Facilities, Equipment, Supplies, and Other Resources	22
A. Junior High Schools	22
B. High Schools	23
C. Actions Taken	23
V. Personnel Support	24
A. Junior High Schools	24
B. High Schools	25
C. Actions Taken	25
VI. District and Community Resources	25
A. Junior High Schools	25
B. High Schools	26
C. Actions Taken	26
VII. Additional Recommendations	27
A. Junior High Schools and B. High Schools	27
APPENDIX A JUNIOR HIGH SCHOOL COMBINED DATA SUMMARIES	29
APPENDIX B INDIVIDUAL JUNIOR HIGH SCHOOL DATA SUMMARIES	39
APPENDIX C HIGH SCHOOL COMBINED DATA SUMMARIES	173
APPENDIX D INDIVIDUAL HIGH SCHOOL DATA SUMMARIES	183
APPENDIX E MAJOR SUBJECT AREA DATA SUMMARIES	229
APPENDIX F PRINCIPAL INTERVIEW SCHEDULE (QUESTIONNAIRE)	248
APPENDIX G TEACHER INTERVIEW SCHEDULE (QUESTIONNAIRE)	249

SECONDARY SCIENCE PROGRAM EVALUATION
Executive Summary
Prepared by: Wesley E. Blamick
June, 1984

INTRODUCTION
(Program Description and Methodology)

The secondary science program was available to students in grades 7-12 during the 1983-84 school year. During the first quinmester, 18,674 students were enrolled in the courses of life science, physical science, earth science, general science, and biology at the 10 junior high schools. During the same period at the nine high schools, 12,941 students were enrolled in science courses in the areas of biology, chemistry, physics, general science, physical science, and earth science.

The purpose of the 1983-84 evaluation of the secondary science program was to provide data for use in program improvement. Input for designing the evaluation came from Department of Secondary Education instructional managers; an evaluation advisory committee composed of principals and district-based managers; a committee of secondary science teachers; a university professor with expertise in the areas of evaluation and science; the science consultant from the Florida Department of Education; and a search of the professional literature in the areas of standards, evaluation, and secondary science. The literature review included materials from the Southern Association of Colleges and Schools, the National Science Teachers Association, the Florida Department of Education, the California Department of Education, the Joint Committee on Standards for Educational Evaluation, the American Educational Research Association, and the Educational Resources Information Center (ERIC) system. The many specific suggestions and concerns from the various input sources were addressed through questions and items incorporated in the data collection procedures. The input was grouped under the following general questions which guided the evaluation:

1. Was a secondary science curriculum which served advanced, average, and low ability students at grade levels 7 - 12 provided?
2. Was the secondary science program staffed with qualified teachers who strove to improve their skills and knowledge in science teaching?
3. Was student achievement in science higher than that of national norm groups?
4. Were effective classroom management and instructional procedures in secondary science implemented?
5. Were facilities, equipment, and supplies necessary to support a quality secondary science program provided?
6. Was the secondary science program strengthened through support from district-based and school-based personnel?
7. Were district-wide and community resources used for the betterment of the secondary science program?

Data for answering questions were obtained from computer data bases; interviews with principals, science department chairpersons, and science

teachers at each secondary school; and nationally norm-referenced achievement tests. Student performance data at the junior high school level were obtained from the seventh and ninth grade science subtests of the Comprehensive Tests of Basic Skills, Version U (CTBS-U). Baseline student performance data on first year chemistry students at the high school level were obtained from the American Chemical Society/National Science Teachers Association (ACS/NSTA) test. Baseline student performance data on first year physics students were obtained from the American Association of Physics Teachers/National Science Teachers Association (AAPT/NSTA) test.

Using the data retrieved from the computer and data collected from interviews with principals and teachers, a profile sheet and other summary data sheets were prepared for the combined junior high schools, the combined high schools, and each secondary school. In December, 1983, the data for the combined junior high schools and combined high schools were presented to the associate superintendent and directors of the Department of Secondary Education for their review and reaction. In January, 1984, at a joint meeting of the principal, assistant principal for instruction, and science department chairperson at each secondary school, pertinent summary data for the school were presented.

FINDINGS

1. Students were required to take life science in the seventh grade, physical science in the eighth grade, and a half year of a science in the ninth grade at the junior high schools during the 1983-84 school year. In the ninth grade, students were enrolled in earth science at all schools, biology at seven schools, and general science at one school.

   Of the total student population at the high schools during the first quimester of the 1983-84 school year, 49% were enrolled in the biological sciences while 31% were enrolled in the physical sciences. A breakdown of the enrollment of the physical sciences showed chemistry with 14%, physics with 4%, general science with 9%, physical science with 3%, and earth science with 1%.

2. Of the secondary science teachers interviewed, 81% named one or more special provisions that they had made to meet the needs of advanced ability students, 68% named special provisions for average ability students, and 70% named special provisions for low ability students.

3. In proportion to the total junior high school student population, science enrollment in the junior high schools was 9% higher in 1983-84 than in 1982-83, while proportionally in the high schools it was 21% higher in 1983-84 than in 1982-83. Probably much of this increase was due to the state requirement of three credits in science in grades 9 through 12 for students graduating in 1985.

4. As indicated by principals interviewed, the teaching staff was the most often mentioned strength of the science programs at the secondary schools.

5. High morale among science teachers was evidenced by the fact that science teachers interviewed indicated high satisfaction with their assigned classes and their preparation to teach assigned classes.

6. Twenty-one (21) percent of junior high and 22% of high school teachers were teaching one or more science courses out-of-field.

7. In the five years prior to the 1983-84 school year, 63% of the junior high and 57% of the high school teachers completed at least one college level science content course.

8. The district average median percentile on the seventh grade CTBS-U science subtest in 1984 was 57, which was 7 points higher than the 1984 national norm group median and 3 points higher than the 1983 district median.

9. The district average median percentile on the ninth grade CTBS-U science subtest in 1984 was 60, which was 10 points higher than the 1984 national norm group median and 4 points higher than the 1983 district median.

10. The district baseline average median score for first year chemistry students on the ACS/NSTA test was 35, which was 6 points lower than the national norm group median.

11. The district baseline average median score for first year physics students on the AAPT/NSTA test was 32, which was 1 point higher than the national norm group median.

12. Observations and interviews showed that science teachers placed emphasis on lesson plans and making students aware of the objectives they were to achieve. This is a strength of the secondary science program across the district.

13. Facilities, equipment, and supplies were the most often mentioned areas of the science program in need of strengthening as indicated by responses from principals and teachers.

14. Laboratory instruction was the second most frequently mentioned area of the science program in need of strengthening.

15. Junior and senior high school science department chairpersons received high ratings from other science teachers who were interviewed.

16. Administrative support was frequently mentioned by teachers as a strength of the junior high school science program.

17. Junior high school principals and science teachers most often named the science fair as an exemplary activity, while high school principals and science teachers mentioned the Physics Olympics most often.

RECOMMENDATIONS

1. Consideration should be given to increasing high school student enrollment in the physical sciences, especially chemistry and physics. Higher enrollment in these courses would enable more students to qualify for the Florida Academic Scholars Program, which calls for four years of progressively advanced instruction in science, including laboratory courses in biology, chemistry, and physics.

2. Given the state mandated increase in science graduation requirements for all students, increased attention should be paid to meeting needs of students at all ability levels—advanced, average, and low.

3. Teachers who are not certified in subjects they are scheduled to teach should make use of available resources and opportunities to remedy deficient areas and to achieve certification. The state should be encouraged to continue providing funds to compensate science teachers for taking college-level science content courses which assist teachers in achieving certification.

4. The CTBS-U science subtest results should be examined and used to foster continued improvement in student performance. Special attention should be given to schools in which medians were below national medians.

5. The ACS/NSTA chemistry test and the AAPT/NSTA physics test results should be examined and used to improve student performance. Special attention should be given to schools in which medians were below national medians. The search to identify a norm-referenced achievement test in biology which could be used to establish baseline data should be continued.

6. Resource needs at each secondary school should be studied so that facilities, equipment, and supplies to support a quality instructional program will be provided.

7. Inservice science programs should be directed toward upgrading teacher skills and knowledge in science content and processes especially in the area of laboratory instruction.

8. Consideration should be given to using the profiles and other data summary sheets as frameworks for examining the science program needs at the secondary schools.

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SECONDARY SCIENCE PROGRAM EVALUATION
REPORT OF RESULTS

PURPOSE

The purpose of the 1983-84 evaluation of the secondary science program was to provide data to district-based and school-based personnel for use in program improvement. The evaluation was designed to determine the extent to which secondary science program objectives were met.

RELATED DISTRICT GOALS

Goal 1: To improve academic achievement to meet continued education and career objectives

Goal 3: To improve classroom teacher performance

Goal 5: To improve district and school based planning and budgeting

Goal 6: To improve citizen, staff, and student involvement in the decision making process and community knowledge and awareness of the Orange County Public School System

Goal 7: To improve the use of new and emerging technology

Goal 8: To provide adequate facilities

PROGRAM DESCRIPTION

The secondary science program was available to students in grades 7-12 during the 1983-84 school year. During the first quinmester, 18,674 students were enrolled in the courses of life science, physical science, earth science, general science, and biology at the 19 junior high schools. During the same period at the nine high schools, 12,941 students were enrolled in science courses in the areas of biology, chemistry, physics, general science, physical science, and earth science.

PROGRAM OBJECTIVES

1. To provide a secondary science curriculum to serve advanced, average, and low ability students at every grade level 7-12

2. To staff the secondary science program with qualified teachers who strive to improve their skills and knowledge in science teaching

3. To improve student performance in science and to implement effective classroom management and instructional procedures in science

4. To provide facilities, equipment, supplies, and other resources which are necessary to support a quality secondary science program

5. To strengthen the secondary science program through support from district-based and school-based personnel

6. To use district-wide and community resources for the betterment of the secondary science program

EVALUATION QUESTIONS

I. Was a secondary science curriculum which served advanced, average, and low ability students at every grade level 7-12 provided?

II. Was the secondary science program staffed with qualified teachers who strove to improve their skills and knowledge in science teaching?

III. Was student performance in science improved and were effective classroom management and instructional procedures in secondary science implemented?

IV. Were facilities, equipment, supplies, and resources which are necessary to support a quality secondary science program provided?

V. Was the secondary science program strengthened through support from district-based and school-based personnel?

VI. Were district-wide and community resources used for the betterment of the secondary science program?

ASSESSMENT INSTRUMENTS

Interview Schedules (Questionnaires)

A principal questionnaire consisting of six open-ended items was used to interview the principal at each of the 19 junior high schools and nine high schools (see Appendix F). A teacher questionnaire consisting of 94 items was used to interview the science department chairperson and at least two other teachers at each of the secondary schools (see Appendix G). A teacher representing each of the grades seven, eight, and nine was interviewed at each junior high school. At each high school, a teacher representing each of the subject areas of biology, chemistry, and physics was interviewed. The teacher questionnaire included demographic items, open-ended items, yes-no response items, and 56 items representative of standards for secondary science programs. The 56 items were rated using a scale of 1 low - 5 high.

Achievement Tests

The science subtests of the Comprehensive Tests of Basic Skills (CTBS-U) which were administered during February were used to obtain achievement test data on seventh and ninth grade students. Baseline achievement data on first year chemistry students were obtained from the American Chemical Society/

National Science Teachers Association (ACS/NSTA) High School Chemistry Examination, Form 1983. Baseline achievement data on first year physics students were obtained from the American Association of Physics Teachers/National Science Teachers Association (AAPT/NSTA) High School Physics Examination, Version 1983S. Chemistry and physics tests were administered in late May, 1984.

PROCEDURES

Literature Review

Investigation in relation to the evaluation of the secondary science program began with a review of the literature concerning science program standards and science evaluation and research studies. Included in the review were evaluation materials from the Southern Association of Colleges and Schools, the National Science Teachers Association, the Florida State Department of Education, the California State Department of Education, and the Joint Commmittee on Standards for Educational Evaluation. The Educational Resources Information Center (ERIC) system was used to identify and review science research and evaluation studies that had been conducted. Also, American Educational Research Association publications as well as other pertinent literature on research and evaluation in science were reviewed.

Staff Input

Staff input for the secondary science program evaluation was received from a number of sources in May and June of 1983. Instructional personnel responded to memoranda which asked them to submit science evaluation questions or concerns to the Program Evaluation Section. An advisory committee composed of district-based and school-based personnel met to discuss evaluations and to offer suggestions for conducting the evaluations which were on the calendar for the 1983-84 school year. An all day workshop attended by junior high school and high school science teachers was conducted by the district science program consultant to elicit information for use in the science evaluation. A university professor with expertise in the areas of science and evaluation served as the facilitator for the workshop. At another meeting, the district science program consultant and the secondary science program evaluator met with the science consultant from the Florida State Department of Education to discuss the science program evaluation. The secondary science program evaluator worked closely with the district science program consultant during the development of the evaluation plan as well as during implementation of the evaluation. The science program evaluator was invited to attend various district level meetings called by the district science program consultant. Information received from all of the various sources was used in designing the secondary science program evaluation plan for 1983-84.

Presentation of Evaluation Plans

Evaluation plans were communicated to appropriate district personnel by memoranda and meetings. The secondary science evaluation plan was presented to district science teachers and science department chairpersons at separate meetings during pre-planning sessions held in August, 1983.

Population Interviewed

Principals at 17 junior high schools were interviewed. The assistant principal of instruction was interviewed at two junior high schools. Principals at eight high schools were interviewed. The assistant principal of instruction was interviewed at one high school.

Science department chairpersons at all junior high schools and high schools were interviewed.

At each junior high school, a life science teacher, a physical science teacher, and an earth science teacher were interviewed. The science department chairperson was among the three teachers interviewed.

At each high school, a biology teacher, a chemistry teacher, and a physics teacher were interviewed. The science department chairperson was among the three teachers interviewed, except at one high school where the science department chairperson taught no science courses.

It should be noted that teacher responses at an individual school were not necessarily representative of all of the science teachers at that particular school because of the small number of teachers interviewed.

Data Collection, Compilation, and Presentation Schedule

In September, 1983, interview questionnaires were field tested and finalized.

In October, 1983, end of first quinmester data on student enrollment, science courses, and teacher certification, education, and experience were retrieved from computer data base files.

In October, November, and early December, 1983, individual interviews with the principal, science department chairperson, and at least two other science teachers at each of the secondary schools were conducted. The science program evaluator interviewed at eleven junior high schools and eight high schools while a colleague interviewed at eight junior high schools and one high school.

In December, 1983, computer programs to retrieve interview data which had been entered into the computer were written. Then, data from the interviews and the computer data bases were compiled in respect to combined junior high schools, combined high schools, and each secondary school.

In early January, 1984, data from the combined junior high schools and combined high schools were presented to district-based instructional personnel. In late January and February, 1984, preliminary results were presented at a joint meeting of the principal, assistant principal for instruction, and the science department chairperson at each secondary school. At each school, personnel received an 11 page report which contained profiles, data tables, and statements of noteworthy points for their school and for the combined junior high schools or combined high schools, whichever was appropriate. The evaluator

suggested that the information be shared with science teachers and that it be used for planning. Data were verified at the school meetings and comments and suggestions were recorded.

In March, 1984, results from the seventh and ninth grade science subtests of the CTBS-U were analyzed. Also in March, a follow-up telephone call was made to each secondary school science department chairperson. The purpose of the follow-up was to receive further input about the preliminary evaluation results especially in respect to points that school-based personnel considered noteworthy.

During April, 1984, evaluation reports for each junior high school were written and reports for each high school were started (end of year achievement test data for physics and chemistry were not obtained until the end of May, 1984). Computer programs for retrieving chemistry and physics test data were developed.

Using the available results from the 1983-84 evaluation, secondary science evaluation plans and suggestions for activities for 1984-85 were developed in April and May, 1984. Results from the chemistry and physics tests were compiled and analyzed in late May, 1984.

Secondary science program evaluation reports were finalized in June, 1984.

Data Analysis

Data from the student, personnel, and master schedule data bases were analyzed in respect to number and percentage of teachers by subject area, number and percentage of teachers by rank, average years teaching experience, number and percentage of teachers teaching one or more science classes out-of-field, student enrollment by subject area, percentage of total enrollment by subject area, number of classes, average class size, number and percentage of classes taught by out-of-field teachers, and number and percentage of students taught by out-of-field teachers.

Combined perceptions of principals and teachers as recorded during interviews were tallied and summarized according to strengths of the science program and aspects of the science program which needed strengthening.

Teacher ratings on 56 items of the teacher questionnaire were averaged. Teachers rated the 56 items with a 1, 2, 3, 4, or 5 with 1 being low and 5 high. The highest possible average was 5.00 and the lowest possible average was 1.00. Then, averages were used to rank items. One (1) was the highest rank and 56 was the lowest rank. Items from the top quartile (top 14) of ranked items and bottom quartile (bottom 14) of ranked items were reported in the findings. Responses from open-ended items were tallied and summarized. Other items of the teacher questionnaire were analyzed using percentages. Teacher questionnaire data were reported by combined groups, schools, and subject areas.

Seventh and ninth grade achievement results from the science subtests of the CTBS-U were analyzed by using median scores in comparison with the national

norm group. Use of the median was consistent with CTBS-U reporting procedures in the district.

ACS/NSTA chemistry test scores and AAPT/NSTA physics test scores were analyzed in respect to median scores.

Data concerning funding, inservice programs, and district-wide science activities which were provided by the district science program consultant were summarized and reported in the findings.

Data summarized by combined junior high schools, individual junior high schools, combined high schools, individual high schools, and subject area can be found in Appendices A-E.

RESULTS

Question I: Was a secondary science curriculum which served advanced, average, and low ability students at every grade level 7 - 12 provided?

A. Junior High Schools, N = 19

. A comprehensive science curriculum which served the needs of advanced, average, and low ability students in grades seven, eight, and nine was provided at each junior high school. The total science enrollment at the end of the first quinmester of the 1983-84 school year was 18,674 which was 93% of the junior high school enrollment of 20,102. Enrollment during the comparable period in the 1982-83 school year was 16,548 or 84% of the total junior high school enrollment of 19,788. Thus, there was an increase of nine percentage points in junior high school science enrollment between the 1982-83 and 1983-84 school years. Courses offered in the first quinmester of 1983-84 with science enrollments and percentages of the total junior high school enrollment were as follows:

Life science -	grade seven,	6645 students,	33%
Physical science -	grade eight,	6357 students,	32%
Earth science -	grade nine,	5018 students,	25%
Biology -	grade nine,	512 students,	3% (offered at seven schools)
General science -	grade nine,	142 students,	1% (offered at one school)

. Average class size in science was 27.

. Of the teachers interviewed, 77% named one or more special provisions that had been made for high ability students, 68% named one or more special provisions that had been made for average ability students, and 70% named one or more special provisions that had been made for low ability students. Examples of some of the provisions were grouping, special labs, audio-visual aids, supplementary materials, and special writing assignments (see Appendix A for a complete list).

. The content, skills, and competencies of the curriculum guide were taught in the classroom and laboratory according to 93% of the teachers interviewed.

* * *

B. High Schools, N = 3

. A comprehensive science curriculum which served the needs of advanced, average, and low ability students in grades 10, 11, and 12 was provided at each high school. The total science enrollment at the end of the first quinmester of the 1983-84 school year was 12,941 or 77% of the total high school enrollment of 16,808. Enrollment during the comparable period in the 1982-83 school year was 9,317 or 56% of the total high school enrollment of 16,786. Thus, there was an increase of 21 percentage points in high school science enrollment between the 1982-83 and 1983-84 school years. Courses offered in the first quinmester of 1983-84 with science enrollments and percentages of the total high school enrollment were as follows:

Biology -	8232	students, 49% (one high school offered one class of advanced placement biology)
Chemistry -	2318	students, 14% (each of two high schools offered one class of advanced placement chemistry)
General science -	1554	students, 9%
Physics -	734	students, 4%
Physical science -	456	students, 3%
Earth science -	222	students, 1%

. Average class size in science was 27.

. Of the teachers interviewed, 87% named one or more special provisions that had been made for high ability students, 68% named one or more special provisions that had been made for average ability students, and 71% named one or more special provisions that had been made for low ability students. Examples of some of the provisions were different levels of courses, supplementary materials, notebooks, library work, and special tests (see Appendix C for a complete list).

. The curriculum was the second most frequently mentioned strength of the science program. The curriculum also was mentioned the fifth highest number of times as an area of the science program in need of strengthening.

. The content, skills, and competencies of the curriculum guide were taught in the classroom and laboratory according to 90% of the teachers interviewed.

Question II: Was the secondary science program staffed with qualified teachers who strove to improve their skills and knowledge in science teaching?

A. Junior High Schools

. The teaching staff was the most often mentioned strength of the science program as perceived by principals and teachers interviewed.

. Teacher preparation for assigned classes ranked 2 (1 was highest and 56 was lowest) out of 56 items rated by teachers. Average ratings by life science, physical science, and earth science teachers were 4.80, 4.29, and 4.32 respectively.

. Teacher satisfaction with assigned courses was ranked 3 out of 56 items rated by teachers. Average ratings by life science, physical science, and earth science teachers were 4.60, 4.41, and 4.42 respectively.

. Of a total of 157 teachers who taught at least one science course in the junior high schools, 69% held a Rank 3 certificate, 28% held a Rank 2 certificate, and 3% held a Rank 1 or 1A certificate.

. Thirty-three science teachers (21%) were teaching one or more science classes out-of-field (OOF). Of 694 science classes, 15%, representing 15% of the students enrolled in science, were taught by OOF teachers. Certification and inservice for some teachers was the fifth most often mentioned area in need of strengthening as perceived by principals and teachers.

. In the five years prior to the 1983-84 school year, 63% of the science teachers completed at least one college level science content course.

. Knowledge of proper safety procedures ranked 9 out of 56 items rated by teachers. Of the teachers interviewed, 30% said that they had completed a course devoted to safety in science classrooms and laboratories.

. In 18 of 19 junior high schools, one or more teachers held more than one course assignment (e.g., life science and physical science, mathematics and earth science).

* * *

B. High Schools

. The teaching staff was the most often mentioned strength of the science program as perceived by principals and teachers.

. Teacher preparation for assigned classes ranked highest or 1 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 4.40, 4.44, and 4.44 respectively.

. Teacher satisfaction with assigned courses ranked 2 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 4.00, 4.56, and 4.89 respectively.

. Of a total of 109 teachers who taught at least one science course, 45% held a Rank 3 certificate, 53% held a Rank 2 certificate, and 2% held a Rank 1 or 1A certificate.

. Twenty-four science teachers (22%) were teaching one or more science classes out-of-field. Certification and inservice for some teachers was the third most often mentioned area in need of strengthening as perceived by principals and teachers.

. In the five years prior to the 1983-84 school year, 57% of the science teachers completed at least one college level science content course.

. Knowledge of proper safety procedures ranked 7 out of 56 items rated by teachers. Thirteen percent (13%) of the teachers interviewed said that they had completed a course devoted to safety in science classrooms and laboratories.

Question III: Was student performance in science improved and were effective classroom management and instructional procedures implemented?

A. Junior High Schools

. The district average median percentile on the seventh grade CTBS-U science subtest in 1984 was 57 (it was 54 in 1983). The national median was 50. Thus, the seventh grade district median in 1984 was three points higher than in 1983 and seven points higher than the national median.

. Percentages of right responses by content area of the 1984 CTBS-U science subtest for the Orange County Public Schools seventh grade and for the national norm group were:

	Botany	Zoology	Ecology	Physics	Chemistry	Land, Sea, or Space
7th Grade	64	68	51	73	67	63
Nation	60	64	48	68	63	60

Thus, in 1984 district seventh grade percentages of right responses were higher than the national norm group for every content area of the CTBS-U science subtest.

. The district average median percentile on the ninth grade CTBS-U science subtest in 1984 was 60 (it was 56 in 1983). The national median was 50. Thus, the ninth grade median in 1984 was four points higher than in 1983 and ten points higher than the national median.

. Percentages of right responses by content area of the 1984 CTBS-U science subtest for the Orange County Public Schools ninth grade and for the national norm group were:

	Botany	Zoology	Ecology	Physics	Chemistry	Land, Sea or, Space
9th Grade	65	57	56	48	60	52
Nation	59	55	51	44	59	45

Thus, in 1984, district ninth grade percentages of right responses were higher than the national norm group for every content area of the CTBS-U science subtest.

. Laboratory instruction was the the second most frequently mentioned strength of the science program as well as the second most frequently mentioned area in

need of strengthening as perceived by principals and teachers. According to 95% of the teachers interviewed, laboratory experiences were evaluated and used in determining letter grades for students. Teachers indicated that 19% of class time was devoted to laboratory experiences where students worked individually or in pairs. The management and organization of laboratory experiences ranked 13 out of 56 items rated by teachers. Average ratings by life science, physical science, and earth science teachers were 4.10, 4.29, and 3.79 respectively.

. Meeting needs of students through varied classroom activities was fourth highest among most often mentioned strengths of the science program.

. Teacher lesson plans, making students aware of the objectives they were to achieve in their science courses, lab discipline, and classroom discipline ranked 1, 4, 5, and 7 respectively out of 56 items rated by teachers.

. Reporting student progress to parents ranked 12 out of 56 items rated by teachers.

. Required reading in addition to textbooks ranked 43 out of 56 items rated by teachers.

. The extent to which feedback from teacher made or from textbook tests was used in planning daily lesson plans or units of work ranked 14 out 56 items rated by teachers.

. The extent which state or district-wide administered tests were used in planning learning opportunities for students ranked 51 out of 56 items rated by teachers. The average ratings by life science, physical science, and earth science teachers were 1.78, 2.87, and 1.81 respectively.

. Common end-of-school year district level achievement tests should be administered for each science subject according to 58% of the teachers interviewed.

* * *

B. High Schools

. The baseline average median score for first year chemistry students on the ACS/NSTA test was 35. The national median score was 41.

. The baseline average median score for first year physics students on the AAPT/NSTA test was 32. The national median was 31.

. Laboratory discipline ranked 3 out of 56 items rated by teachers. All (100%) of the teachers interviewed said that laboratory experiences were evaluated and used in determining letter grades for students. Teachers indicated that 22% of class time was devoted to laboratory experiences where students worked individually or in pairs. The management and organization of laboratory experiences ranked 6 out of 56 items rated by teachers.

. Classroom discipline, making students aware of objectives they were to achieve in their science courses, using lesson plans to guide instruction in

science, homework, lab manuals, and helping students become aware of career opportunities in science and building student interest in science ranked 4.5, 4.5, 9, 10, 11, and 13 respectively out of 56 items rated by teachers.

. Required reading beyond the textbook ranked 47 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 2.90, 2.22, and 2.11 respectively.

. The extent to which state and district-wide administered test results were used in planning learning opportunities for students ranked 52 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 2.10, 1.56, and 1.88 respectively.

. Common district-level end-of-year achievement tests should be administered for each major subject area according to 81% of the teachers interviewed.

Question 19: Were facilities, equipment, supplies, and other resources which are necessary to support a quality instructional program provided?

A. Junior High Schools

. Facilities, equipment, and supplies were areas of the science program most often mentioned by principals and teachers as in need of strengthening.

. Textbooks were the fourth most frequently mentioned aspect of the science program in need of strengthening.

. Availability of computers and computer use ranked 53 and 56 respectively out of 56 items rated by teachers.

. Of the teachers interviewed, 68% said that science got a fair share of available funds at their school, 16% said that science did not get a fair share of available funds at their school, and [illegible]% were undecided or did not know.

. Teacher planning time was the third most frequently mentioned area of the science program in need of strengthening. The time that teachers have to plan for laboratory and classroom activities ranked 46 out of 56 items rated by teachers.

. Laboratory class size ranked 47 out of 56 items rated by teachers.

. Lab manuals ranked 48 out of 56 items rated by teachers.

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B. High Schools

. Facilities, equipment, and supplies were areas of the science program most often mentioned by principals and teachers as in need of strengthening. Physics teachers rated equipment, supplies, and resource items lower than did biology or chemistry teachers.

. Appropriateness of textbooks was ranked 14 out of 56 items rated by teachers.

. Of teachers interviewed, 42% said that science got a fair share of available funds at their schools, 32% said that science did not get a fair share of available funds at their school, and 26% were undecided or did not know. Among biology, chemistry, and physics teachers, the percentages of those who said that science got a fair share of available funds were 60, 22, and 33 respectively.

. Planning time was the second most frequently mentioned area of the science program in need of strengthening. The time that teachers have to plan for laboratory and classroom activities ranked 50 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 2.60, 2.00, and 1.56 respectively.

. Availability of computers and computer use ranked 55 and 56 respectively out of 56 items rated by teachers.

Question V: Was the secondary science program strengthened through support from district-based and school-based personnel?

A. Junior High Schools

. Administrative support was the fifth most frequently mentioned strength of the science program.

. Science department chairpersons, the science coordinator, and administrative support ranked 8, 10.5, and 10.5 respectively out of 56 items rated by teachers.

. Involvement with guidance counselors in planning programs for students ranked 45 out of 56 items rated by teachers. Average ratings by life science, physical science, and earth science teachers were 2.89, 2.56, and 2.67 respectively.

. Involvement in textbook selection ranked 6 out of 56 items rated by teachers.

. Involvement in the development of the science department budget ranked 52 out of 56 items rated by teachers.

. Involvement in the selection of teachers ranked 55 out of 56 items rated by teachers.

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B. High Schools

. The department chairperson was the fourth most frequently mentioned strength of the science program.

. Science department chairpersons ranked 8 out of 56 items rated by teachers.

. Involvement in library acquisitions ranked 12 out of 56 items rated by teachers.

. Involvement with guidance counselors in planning programs for students ranked 45 out 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 2.70, 2.33, and 3.11 respectively.

Question VI: Were district-wide and community resources used for the betterment of the secondary science program?

A. Junior High Schools

. The science fair was named as an exemplary activity by interviewees.

. Field trips to the John Young Museum and Planetarium (Orlando Science Center) and the National Aeronautics and Space Administration Program (NASA) were other activities mentioned as being exemplary.

. Extending programs into the community by field trips and fairs ranked 44 out of 56 items rated by teachers. Average ratings by life science, physical science, and earth science teachers were 3.25, 2.29, and 2.79 respectively.

. Involvement with students in out-of-class activities such as clubs ranked 50 out of 56 items rated by teachers.

. Coordination of science programs between junior high schools ranked 49 out of 56 items rated by teachers. Average ratings by life science, physical science, and earth science teachers were 2.10, 1.78, and 3.38 respectively.

. Coordination of science programs with feeder schools ranked 54 out of 56 items rated by teachers. Average ratings by life science, physical science, and earth science teachers were 2.44, 1.86, and 1.83 respectively.

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B. High Schools

. The Physics Olympics, Chemathon, Engineering Club, Jets Club, and the Southern Consortium for Minorities in Engineering were named as exemplary activities by interviewees.

. Use of community resources and community members in the classroom ranked 43 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 3.80, 3.11, and 2.11 respectively. Extending programs into the community by field trips and fairs ranked 46 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 3.00, 2.33, and 2.22 respectively.

. Involvement in developing the budget ranked 53 out of 56 items rated by teachers.

. Involvement in teacher selection ranked 54 out of 56 items rated by teachers.

. Coordination of science programs between high schools ranked 48 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 2.10, 1.78, and 3.38 respectively.

. Coordination of science programs with math ranked 49 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 1.67, 2.11, and 3.22 respectively.

. Coordination of science programs with feeder schools ranked 51 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 2.44, 1.86, and 1.83 respectively.

. Helping parents become aware of science opportunities, activities, and events at school and in the district ranked 44 out of 56 items rated by teachers. Average ratings by biology, chemistry, and physics teachers were 3.60, 1.88, and 2.38 respectively.

CONCLUSIONS

I. Curriculum and Students

A. Junior High Schools

The junior high school science curriculum served students at each grade level seven through nine at each of the nineteen junior high schools during the 1983-84 school year. The comprehensive junior high school curriculum offered a balanced and sequential program of life, physical, and earth and space science courses. Within the courses offered, teachers made many special provisions for meeting the science education needs of advanced, average, and low ability students.

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B. High Schools

The high school science curriculum served the science education needs of students at each grade level ten through twelve at each of the nine high schools during the 1983-84 school year. Although the comprehensive high school science curriculum provided a variety of courses for students, the evidence indicated that the science program was weighted in favor of the biological sciences over the physical and earth and space sciences. Results showed that teachers made many provisions to meet the science education needs of advanced, average, and low ability students. Overall, however, the curriculum and special provisions by teachers

reflected a heavier emphasis on meeting the science education needs of high ability students rather than those of average or low ability students.

II. Teachers

A. Junior High Schools

The junior high school science program was staffed with dedicated, enthusiastic, and caring teachers who felt prepared for and satisfied with their teaching assignments. However, records showed that 21% of teachers assigned to teach science were teaching one or more science classes out-of-field and interviewees indicated that some teachers lacked the desired skills or qualifications for teaching science. On the other hand, a majority of science teachers had completed or were enrolled in college level science content courses which could help upgrade their science teaching skills and help some teachers meet certification requirements for certain science areas.

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B. High Schools

The high school science program was staffed with cooperative and able teachers who felt prepared for and satisfied with their teaching assignments. However, records showed that 22% of teachers assigned to teach science were teaching one or more science classes out-of-field and interviewees indicated that some teachers lacked the desired skills or qualifications for teaching science. On the other hand, a majority of science teachers had completed or were enrolled in college level science content courses which could help upgrade their science teaching skills and help some teachers meet certification requirements in certain science areas. The fact that a majority of the science teachers held a Rank 2 or higher certificate indicated an interest in professional growth and improvement.

III. Student Performance, Classroom Management, and Instructional Procedures

A. Junior High Schools

As indicated by median scores on the science subtest of the CTBS-U, student performance in science in 1984 at both the seventh and ninth grade improved over student performance in 1983. District science subtest median scores at both the seventh and ninth grade in 1984 exceeded the national norm reference group medians. District percentages of right responses on the science subtests of the CTBS-U for seventh and ninth grade in 1984 exceeded the national norm group percentages in every science content area.

Results showed that laboratory experiences for students were emphasized at all grades seven through nine. Nevertheless, interviewees expressed a need for improving laboratory instruction.

A well defined approach to instruction characterized the science program at the junior high schools. Lesson plans and helping students become aware of objectives they were to achieve in science were emphasized by teachers. Instruction was supported by varied classroom activities, hands-on laboratory experiences, laboratory discipline, and classroom discipline.

In general, teachers made use of feedback from teacher made and textbook tests, but not district-wide tests in planning daily lessons and units of work.

Rankings indicated that required reading for students in addition to textbooks was low among science program items rated by teachers.

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B. High Schools

Baseline data from the ACS/NSTA chemistry test indicated that the median score for first year chemistry students was below the national norm reference group median. Baseline data from the AAPT/NSTA physics test indicated that the median score for first year physics students was above the national norm reference group median.

Results showed that laboratory instruction and management were emphasized by interviewees. All teachers interviewed said that laboratory experiences of students were evaluated and used in determining letter grades for students.

Findings showed that classroom discipline and making students aware of objectives they were to achieve in science were important. Also important were using lesson plans to guide instruction, homework, helping students to become aware of career opportunities, and building student interest in science.

Using district-wide test results for guiding instruction ranked low among items rated by teachers.

Required reading in addition to textbooks was among the lowest rated of science program items.

IV. Facilities, Equipment, Supplies, and Other Resources

A. Junior High Schools

Although facilities and equipment were considered strengths of the science program at some junior high schools, overall, facilities and equipment represented the areas of greatest concern to principals and teachers. Providing rooms for floating teachers, providing laboratory space to accommodate all science students, and updating equipment were identified specifically as areas of concern.

Computers were not available to be used in science classes by science teachers and students.

Interviews revealed that more uniform and better textbooks were needed.

Teacher planning time and time for laboratory preparation were insufficient.

In all but one junior high school, one or more teachers held multiple course assignments.

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B. High Schools

Although facilities and equipment were considered strengths of the science program at some high schools, overall, facilities and equipment represented the areas of greatest concern to principals and teachers. Renovating facilities, updating equipment, and maintaining and securing equipment were identified specifically as areas of concern.

Except in a few courses, computers were not available for use by teachers and students in science classes.

Teacher planning time and time for laboratory preparation were insufficient.

Findings indicated that many chemistry and physics teachers did not feel that science received a fair share of available funds at their schools.

V. Personnel Support

A. Junior High Schools

Findings indicated that administrative support from department chairpersons, principals, and assistant principals at the school level and administrative support from the science program consultant at the district level strengthened the junior high school science program.

Findings showed that teacher involvement with guidance counselors in planning programs for students was ranked low in relation to other items rated by teachers.

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B. High Schools

Interview responses and ratings showed that science department chairpersons were a strength of the science program at the high schools. Rankings indicated that school level administrators received average ratings relative to the support of the science program.

Findings showed that teacher involvement with guidance counselors in planning programs for students ranked low in relation to other items rated by teachers.

VI. District and Community Resources

A. Junior High Schools

Science fairs which involved school-based personnel, district-based personnel, and community members were assets to the science programs at the junior high schools. Science awareness and interest in science were stimulated by the science fairs.

Rankings indicated that extending science programs into the community was rated low. However, responses showed that teachers were interested in more science program involvement with the community, but felt restrained by limited resources such as time.

Rankings indicated that teacher ratings of student involvement in out-of-class activities such as clubs was low.

Responses revealed that teachers felt that they had little involvement with coordination of science programs between junior high schools.

Teacher involvement in the coordination of junior high school science programs with science programs at feeder schools ranked very low. Physical and earth science teachers were less involved than life science teachers.

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B. High Schools

Evidence indicated that high school principals and teachers considered district-wide programs such as the Physics Olympics, Chemathon, and the Engineering Club very beneficial in building awareness and interest in science.

Rankings revealed that high school science teachers gave low ratings to science activities which related to involvement with the community or parents.

Responses showed that physics teachers were more active in working with teachers from other high schools in coordinating programs between high schools than were chemistry or biology teachers. Also, physics teachers were more active in coordinating programs with math.

Although ratings indicated that biology teachers were more involved with science programs at feeder junior high schools than were chemistry or physics teachers, ratings by all three groups were low.

RECOMMENDATIONS

I. Curriculum and Students

A. Junior High Schools

1. The strong program of science courses at the junior high schools which included seventh grade life science, eighth grade physical science, and ninth grade earth science, should be continued. Earth science should be a full year course at all junior high schools. Biology may be offered as an option for high ability ninth grade students.

2. Increased state science requirements and science and technological changes of our rapidly changing community and society demand that continued attention be paid to keeping the science curriculum updated. School-based and district-based instructional personnel should work together in planning and implementing a science curriculum of relevance and excellence.

3. The state science framework should be used to guide district staff in establishing standards, identifying competencies, developing course descriptions, and writing curriculum guides.

B. High Schools

1. The courses in biology, chemistry, and physics at the high schools should be continued. Emphasis should be placed on increasing enrollments in the physical and earth and space sciences to achieve a balance in the curriculum. In particular, individual high schools should develop specific objectives for increasing enrollments in physics and chemistry as appropriate, while maintaining high standards for the courses.

2. More attention should be placed on meeting the science education needs of the lower ability or nonscience oriented students especially in light of the increase in science course requirements for high school graduation.

3. District funds to offset additional costs of advanced courses should be made available to high schools that offer advanced placement, early admissions, or other advanced courses and programs for high ability students. Also, a two-hour-block of time should be made available for advanced placement courses.

C. Actions Taken

1. The district science program consultant met with secondary science teachers during the 1983-84 school year to identify minimum standards in science for students in grades eight and eleven.

2. During the 1983-84 school year, standards for excellence in science for grades eight and eleven were distributed to teachers.

3. Science teachers developed a flow chart explaining the sequencing of science courses to be offered from grade seven through grade twelve. Improved guidance for students was the primary purpose for the flow chart.

II. Teachers

A. Junior High Schools and B. High Schools

1. Science teachers should be commended for the excellent science instruction which was provided during the 1983-84 school year.

2. Inservice science programs should be directed toward upgrading teacher skills and knowledge in science content and processes for both classroom and laboratory instruction. Other inservice sessions should be devoted to safety in the laboratory where teachers learn rules as well as hands on procedures for conducting laboratories. A certificate which could be displayed in a prominent area of the classroom should be presented to each teacher who successfully completes an inservice program. Consideration should be given to recognizing science teachers who gain an established number of points through college science courses or inservice programs and who exemplify the principle of learning as a life-long process.

3. Teachers who are not certified in subjects they are scheduled to teach should make use of available resources and opportunities to remedy deficient areas and to achieve certification. Teachers who are already certified in one area should be encouraged to add on certification in other science areas, mathematics, or computer science. The state should be encouraged to continue providing funds to compensate science teachers for taking college level science content courses which will assist teachers in achieving certification.

4. Instructional personnel should work with personnel from the testing and evaluation sections to help teachers interpret and use standardized achievement test scores and evaluation results for instructional purposes.

5. Whenever possible, teachers should receive assignments in single course areas (e.g., all life science at the junior high school level).

6. District-wide efforts should focus on helping teachers develop incentives for encouraging students to read science publications in addition to textbooks. Reading beyond the textbooks could help stimulate student interest in science and help students

become aware of career opportunities in science. Outside reading and classroom instruction should be geared toward problem solving, helping students use science in their own lives, and helping students understand the interrelatedness of science, technology and society.

B. Actions Taken

1. In January, 1984, a full day of inservice involving every science discipline was provided for junior high and high school science teachers. Personnel from the Florida State Museum and professors from the University of Florida, Florida State University, and University of Central Florida made presentations during the day.

2. During the 1983-84 school year, state funds were used to reimburse twenty-three science teachers who completed college courses leading toward certification. Arrangements were made with Valencia Community College for earth science courses to be taken for certification.

3. Summer institutes to update and prepare approximately 94 secondary science teachers for add on certification are planned for June and July, 1984.

4. Inservice programs to help teachers recertify or to place junior high school on their certificates will be continued during the 1984-85 school year.

III Student Performance, Classroom Management, and Instructional Procedures

A. Junior High Schools

1. The excellent procedures in respect to teacher lesson plans, making students aware of objectives they are to achieve in science, meeting needs of students through varied classroom activities, classroom discipline, and laboratory discipline should be continued and supported.

2. Students should be engaged in laboratory experiences at least one full period a week in all science courses.

3. The CTBS-U science subtest results should be examined and used to foster continued improvement in student performance on the seventh and ninth grade tests. Science subtest items should be analyzed so that instruction can be geared toward strengthening skills and processes which results showed were weak overall. Where feasible, results should be used with individual students to help remedy individual deficiences. Special attention should be devoted to schools where medians were below the national medians.

4. Teachers should be encouraged to use district-wide standardized test results and evaluation results in planning instruction.

B. High Schools

1. Continued support should be given to the emphasis on the importance of lesson plans, helping students become aware of objectives they are to achieve in science, appropriate and challenging homework, and classroom and laboratory discipline.

2. Students should be engaged in laboratory experiences at least one full period a week in all science courses. In high intensity courses, two periods a week should be devoted to laboratory experiences.

3. The ACS/NSTA chemistry test and AAPT/NSTA physics test results should be examined and used to improve student performance in chemistry and physics.

4. An appropriate standardized end-of-year norm referenced achievement test in biology should be administered in May, 1985 to all first year biology students for the purpose of establishing baseline data.

5. Teachers should use district-wide standardized test results and evaluation results for planning instruction.

C. Actions Taken

1. In March, 1984, the principal and science department chairperson at each junior high school were sent a brief report of results from the science subtest of the CTBS-U. The report contained individual school scores and comparable scores for the district and nation.

2. ACS/NSTA chemistry and AAPT/NSTA physics test scores were sent to the principal and science department chairperson at each high school in May, 1984.

IV. Facilities, Equipment, Supplies, and Other Resources

A. Junior High Schools

1. Facilities, equipment, and supplies to support a quality classroom and laboratory instructional program should be provided at each junior high school.

2. District-wide procedures and provisions for maintaining and securing science equipment at the junior high school should be established. District money should be budgeted for this purpose.

3. Textbooks which support district, school, and course objectives should be provided to all students enrolled in science.

4. Microcomputers for use in science should be made available to those junior high schools where needs are established and where appropriate personnel training for making effective use of the computers can be provided.

5. Adequate time/resources for preparing laboratories and planning for instruction should be provided to teachers. In order to provide more planning time and laboratory preparation time for teachers, consideration should be given to reducing or eliminating multiple assignments. Also, consideration should be given to measures such as using aides, using ADDitions volunteers, reducing class size, reducing number of courses taught, reducing duty assignments, and making arrangements so that one teacher can be responsible for laboratory preparation for a series of courses.

6. A science department budget document for equipment and supplies should be available at each school.

B. High Schools

1. Facilities, equipment, and supplies to support a quality classroom and laboratory instructional program should be provided at each high school. In particular, greater support should be provided to chemistry and physics.

2. District-wide procedures and provisions for maintaining and securing science equipment at the high schools should be provided. District money should be budgeted for this purpose.

3. Microcomputers for use in science should be made available to those high schools where needs are established and where appropriate personnel training for making effective use of the computers can be provided.

4. Adequate time/resources for preparing laboratories and planning for instruction should be provided to teachers.

5. A science department budget document for equipment and supplies should be available at each school.

C. Actions Taken

1. Two rooms were renovated for science at one junior high school during the 1983-84 school year.

2. For each earth science student, an allocation of $5.00 of state funds for equipment and supplies was provided during the 1983-84 school year.

3. For each ninth grade biology student, an allocation of $6.00 was provided for equipment and supplies.

4. High schools were allocated $6.00 per student for every student placed into science courses because of RAISE Bill requirements.

5. Textbooks were purchased for all high school students who were placed in science courses because of RAISE Bill requirements.

6. State monies were used to purchase 330 microscopes for use in grades 9-12.

7. State monies were used to purchase 30 skeletons for use in grades 9-12.

8. State monies were used to purchase nine microcomputers, nine monitors, eighteen disk drives, and nine printers to be used in physics classes.

9. During the 1983-84 school year, a planning consultant group was contracted to survey high school facilities for the purpose of determining needs for renovation. As a result of the survey, a plan for renovations was submitted to the State Department of Education.

V. Personnel Support

A. Junior High Schools

1. Administrators, science department chairpersons, and the district science program consultant should be commended for the support given to the junior high school science program.

2. Principals should work more closely with assistant principals of instruction, the science program consultant, and science department chairpersons in upgrading science programs at junior high schools.

3. Science department chairpersons should be adequately compensated for extra time and effort which they devote to science department matters. Consideration should be given to offering recognition/monetary rewards in addition to regular supplements to science department chairpersons in respect to exemplary programs, plans, or activities which they implement and which have demonstrable positive impact on student performance or the science program.

4. Science teachers and guidance counselors should work more closely with each other in helping students plan science programs.

B. High Schools

1. Science department chairpersons should be commended for support given to the science programs in the high schools.

2. Science department chairpersons should be adequately compensated for the extra time and effort which they devote to science department matters. Consideration should be given to offering recognition/monetary rewards in addition to regular supplements to science department chairpersons in respect to exemplary programs, plans, or activities which they implement and which have demonstrable positive impact on student performance or the science program.

3. Principals should work more closely with assistant principals for instruction, the science program consultant, and science department chairpersons in upgrading science programs in the high schools.

4. Science teachers and guidance counselors should work more closely with each other in helping students plan science programs.

C. Actions Taken

1. Departmental meetings were held with all junior high school and high school teachers to obtain input for determining the most effective use of RAISE Bill funds.

2. Preliminary secondary science program evaluation results were presented to district-based instructional personnel in January, 1984. Then, the preliminary results were presented to school-based personnel at meetings held at each of the secondary schools. The principal, assistant principal for instruction, and the science department chairperson at each secondary school attended the school-based meetings.

VI. District and Community Resources

A. Junior High Schools

1. Personnel at each junior high school should be encouraged to conduct a science fair for their students. Students should be honored with recognition awards at each school. Parents, district-based personnel, and business and industry personnel should be involved in the fair effort. Consideration should be given to using science club activities in supporting the science fair. A district-wide committee should be available to assist personnel at individual schools with their efforts. District funds should be budgeted to be used in planning and implementing science fairs.

2. Junior high school science teachers and other instructional personnel should work with personnel from feeder elementary schools to articulate science programs. Teacher inservice and planning days could be utilized to help with articulation plans.

B. High Schools

1. High school students should be made aware of and encouraged to participate in the many science organizations, activities, and programs available throughout the district.

2. High school science teachers and other high school personnel should be encouraged to publicize science opportunities to the parents and the community.

3. High school science teachers as well as other high school personnel should increase involvement of parents and community members in science programs and activities.

4. Consideration should be given to coordinating biology and chemistry programs across high schools as is done in physics, where physics teachers meet and often coordinate activities with programs at the University of Central Florida.

5. Whenever and wherever possible, science programs should be coordinated with math programs.

6. High school science teachers and other instructional personnel should work with personnel from feeder junior high schools to articulate science programs.

C. Actions Taken

1. Approximately 5,000 junior high school students participated in programs at the Orlando Science Center.

2. Twelve junior high schools conducted science fairs at their schools.

3. Thirty students participated in the state science fair.

4. Fourteen schools offered NASA space lectures.

5. Ten schools held science assemblies on the program "Gas Works - Pipeline to the Future."

6. Three schools participated in the Southeastern Consortium for Minorities in Engineering (SECME).

7. Ten students worked at NASA under the minority program for high school apprenticeship research.

8. All biology students had an opportunity to learn from teachers provided by the Blood Bank. The Blood Bank provides two full-time teachers for the schools.

9. High school students participated in the following out-of-class activities:

   a. Junior Engineering Technical Society (JETS) program. Fifty students took part in the JETS engineering exam award
   b. the Physics Olympics held at the University of Central Florida
   c. the Chemathon held at the University of Central Florida
   d. the District Engineering Club
   e. the Martin Marietta Engineering Scholarship Program
   f. Heart Association summer work scholarships
   g. Senior High Apprenticeship Research Program (SHARP)
   h. the Photo Voltaic Cell Conference Research. Eight high schools participated
   i. Orientation to compass use at Mead Gardens (Orienteering)

10. High schools also benefited from participation in the American Chemical Society (ACS) speaker's bureau program, the visiting scientist program, the University of Central Florida's program for physics, the Heart Association's speaker bureau, and the ADDitions program.

VII. Additional Recommendations

A. Junior High Schools and B. High Schools

1. Secondary science program evaluation results should be used to assist instructional personnel in upgrading science programs and improving student performance at individual secondary schools. Each secondary school should develop an action plan for using science program evaluation results.

2. The secondary science program evaluation should be continued during the 1984-85 school year for the purpose of determining the extent to which evaluation results were used by individual schools and to determine changes in student performance on the seventh and ninth grade subtests of the CTBS-U, the ACS/NSTA chemistry test, and the AAPT/NSTA physics test. Also, baseline test data in first year biology should be established.

3. During this period when the state and community are placing such heavy demands on schools to improve science programs and when science course requirements for graduation have been increased for students and when requirements in the areas of standards, tests, and curriculum development have been increased, a secondary science resource person should be added to the staff.

The resource person would assist the district in meeting new science requirements and in implementing actions and plans relative to the secondary science program evaluation.

4. Consideration should be given to establishing within the district a model articulation region in science which would consist of a high school, its junior high feeder schools, and feeder elementary schools. A model articulation region in science could be used to demonstrate:

   a. how elementary, junior high school, high school, and district instructional personnel could work together to develop an exemplary K-12 science program and improve student performance in a designated area of the district.
   b. how business and industry personnel and other community members and parents could be enlisted to support the science program of a certain group of schools.
   c. how school district personnel could work with college and university personnel in cooperative programs to upgrade science opportunities for elementary, secondary, and post secondary students.
   d. how students could work together on community or regional problems or concerns which are amenable to problem solving and scientific investigation.
   e. planning and procedures for the transition to the middle school organization.

   Funds to support a model articulation region in science should be provided.

5. Computer technology should be used to develop an easily accessible bank of science test items which would support state, district, and local school objectives, standards, and competencies.

NOTE: During the 1983-84 school year, approximately $390,000 of state funds from the RAISE Bill were used for the improvement of the secondary science program.

SA: Pro/Ev
TD:

APPENDIX A

JUNIOR HIGH SCHOOLS

COMBINED DATA SUMMARIES

Contents:

1983-84 Science Profile..... 48

Ratings and Ranks by Item..... 49

Ratings and Ranks by Rank..... 50

Teacher Response Percentages..... 51

Science Program Strengths..... 52

Science Areas In Need of Strengthening..... 53

Special Provisions To Meet Student Needs..... 55

Noteworthy Points..... 56

5/App/A
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
JUNIOR HIGH SCHOOLS N = 19

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 157 Life 60 Physical Science 65 Earth Science 50
General Science 2 Biology 7 Teaching in two different science areas 33

Rank 3 109, 69 % Rank 2 44, 28 % Rank 1 or 1A 4, 03 %

Average Years Teaching Experience 12 First Year Teachers 15
Took at least 1 college science course in prior 5 years 99, 63 %
Took a science methods course at some time 124, 79 %
Teaching One or More Classes Out-Of-Field (OOF) 33, 21 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total Junior High Enroll 20102 % Minority 28

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	18674	93	694	27	105	15	2755	15
Life	6645	33	240	28	21	9	538	8
Physical Sci	6357	32	240	26	35	15	916	14
Earth Science	5018	25	188	27	44	23	1152	23
Gen. Sci.	142	1	5	28	3	60	91	64
Biology	512	3	21	24	2	10	58	11

CTBS SCIENCE SUBTEST SCORES - February, 1984

7th Grade Median Percentile 57 National Norm Group 50
9th Grade Median Percentile 60 National Norm Group 50

PERCEPTIONS OF TEACHERS AND PRINCIPALS AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Cooperative and caring teachers
2 Lab instruction, hands-on activities
3 Facilities and equipment
4 Meeting needs of students, varied activities
5 Administrative support

Needs (most frequently mentioned)

1 Facilities, equipment, and supplies
2 Improved lab instruction, reports
3 Reduced class size, more planning time
4 More uniform textbooks, better textbooks
5 Inservice for some teachers, lab training

Highest Rated Questionnaire Items (teachers)

1 Lesson plans and instruction
2 Teacher preparation
3 Teacher satisfaction
4 Objectives awareness by students
5 Lab discipline

Lowest Rated Questionnaire Items (teachers)

1 Computer use
2 Teacher selection
3 Coordination with feeder schools
4 Availability of computers
5 Developing budget

5/TD
ALL/JUNIOR
7/5/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.61	27.5
07	Laboratories	2.83	40.0
08	Equipment	3.19	35.0
09	Supplies	3.32	33.0
10	Safety Knowledge	4.14	9.0
11	Textbooks	3.60	29.5
12	Manuals	2.50	48.0
13	Resources	3.18	36.0
14	Media	3.90	19.5
15	Avail Computers	1.80	53.0
16	Computer Use	1.28	56.0
17	Community in Class	2.82	41.5
18	Extend Prog to Comm	2.79	44.0
19	Parents aware	3.12	37.0
23	Career Opportunities	3.83	23.5
24	Prep for Future in Sci	3.95	16.0
25	Selecting Sci Courses	3.83	23.5
26	Objectives Awareness	4.44	4.0
27	Coor Between Schools	2.30	49.0
28	Coor with Math	2.82	41.5
29	Coor with Feeders	1.71	54.0
30	Lesson Plans and Inst	4.56	1.0
35	Homework	3.90	19.5
36	Manage Labs	4.05	13.0
37	Class Discipline	4.32	7.0
38	Lab Discipline	4.36	5.0
39	Involve in Clubs	2.18	50.0
40	Class Size	2.38	39.0
41	Lab Class Size	2.58	47.0
42	Library Research	3.63	31.0
43	Lab Skills	3.[illegible]	34.0
44	Textbook Skills	3.74	25.0
45	Student Enthusiasm	3.60	29.5
46	On Task in Class	3.88	21.0
47	On Task in Lab	3.95	16.0
48	Teacher Tests and Plans	3.86	22.0
49	Teach Tests and Advice	3.98	14.0
50	Required Reading	2.80	43.0
51	District Tests	2.12	51.0
52	Essay Questions	3.41	32.0
53	Graphs on Tests	3.61	27.5
54	Process Skills on Tests	3.91	18.0
55	Reporting Progress	4.07	12.0
60	Inservice	3.10	38.0
61	Chairperson	4.26	8.0
62	Science Coordinator	4.09	10.5
63	Teacher Preparation	4.49	2.0
64	Admin Support	4.09	10.5
65	Teacher Satisfaction	4.46	3.0
66	Teacher Selection	1.47	55.0
67	Textbook Selection	4.33	6.0
68	Library Acquisitions	3.69	26.0
69	Involve With Guidance	2.70	45.0
70	Planning Time	2.67	46.0
71	Developing Budget	1.83	52.0
72	Using Funds	3.95	16.0

5/TD
JUNIOR/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
30	Lesson Plans and Inst	4.56	1.0
63	Teacher Preparation	4.49	2.0
65	Teacher Satisfaction	4.46	3.0
26	Objectives Awareness	4.44	4.0
38	Lab Discipline	4.36	5.0
67	Textbook Selection	4.33	6.0
37	Class Discipline	4.32	7.0
61	Chairperson	4.26	8.0
10	Safety Knowledge	4.14	9.0
62	Science Coordinator	4.09	10.5
64	Admin Support	4.09	10.5
55	Reporting Progress	4.07	12.0
36	Manage Labs	4.05	13.0
49	Teach Tests and Advice	3.98	14.0
24	Prep for Future in Sci	3.95	16.0
47	On Task in Lab	3.95	16.0
72	Using Funds	3.95	16.0
54	Process Skills on Tests	3.91	18.0
14	Media	3.90	19.5
35	Homework	3.90	19.5
46	On Task in Class	3.88	21.0
48	Teacher Tests and Plans	3.86	22.0
23	Career Opportunities	3.83	23.5
25	Selecting Sci Courses	3.83	23.5
44	Textbook Skills	3.74	25.0
68	Library Acquisitions	3.69	26.0
06	Classrooms	3.61	27.5
53	Graphs on Tests	3.61	27.5
11	Textbooks	3.60	29.5
45	Student Enthusiasm	3.60	29.5
42	Library Research	3.43	31.0
52	Essay Questions	3.41	32.0
09	Supplies	3.32	33.0
43	Lab Skills	3.23	34.0
08	Equipment	3.19	35.0
13	Resources	3.18	36.0
19	Parents aware	3.12	37.0
60	Inservice	3.10	38.0
40	Class Size	2.88	39.0
07	Laboratories	2.83	40.0
17	Community in Class	2.82	41.5
28	Coor with Math	2.82	41.5
50	Required Reading	2.80	43.0
18	Extend Prog to Comm	2.79	44.0
69	Involve With Guidance	2.70	45.0
70	Planning Time	2.67	46.0
41	Lab Class Size	2.58	47.0
12	Manuals	2.50	48.0
27	Coor Between Schools	2.30	49.0
39	Involve in Clubs	2.18	50.0
51	District Tests	2.12	51.0
71	Developing Budget	1.83	52.0
15	Avail Computers	1.80	53.0
29	Coor with Feeders	1.71	54.0
66	Teacher Selection	1.47	55.0
16	Computer Use	1.28	56.0

S/TD
JUNIOR/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	79	14	7
21	Have you completed a safety training course?	30	70	0
22	Does science get a fair share of available funds at this school?	68	16	16
31	Are there established procedures for monitoring lesson plans?	81	19	0
32	Do you think that a science program for the gifted should be provided at your school?	61	33	5
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	93	4	4
34	Do you deal with curriculum scope and sequence in your planning?	91	5	4
56	Are laboratory experiences evaluated and used to determine letter grades?	95	5	
57	Are common school-level exams for each subject used in your school?	9	91	
58	Should common school-level exams for each subject be administered?	42	51	7
59	Should common district-level exams be administered?	58	35	7

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	14
83	Discussion, all students have some opportunity to talk.	12
84	Recitation, students respond to teacher questions or assignments.	9
85	Demonstrations, teachers or students use concrete materials to illustrate points.	8
86	Laboratory, students work individually or in pairs.	19
87	Films, filmstrips, TV.	7
88	Field trips.	1
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	13
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	4
93	Reports from students.	3
94	Other, please specify.	1

5/TD
JR/SCI/QUE
2/1/84

JUNIOR HIGH SCHOOL SCIENCE STRENGTHS
PRINCIPAL AND TEACHER RESPONSES BY NUMBER OF MENTIONS

Teachers: sharing, concerned, cooperative, caring (42)

Lab instruction, hands-on activities (19)

Facilities, equipment (18)

Varied class activities, academic instruction, meeting needs of individual students (12)

Administrative support (11)

Structure of academic program, organization of department (6)

Science fair (4)

Clubs, student activities (3)

Parent support, community support (2)

Concepts (1)

High standards (1)

Speakers (1)

Explanation of career opportunities (1)

Exposure to community resources, museum, Sea World (1)

Study of animals and human body (1)

Background of students (1)

Study guide (1)

Good rapport between teachers and students (1)

Media center support (1)

Class size (1)

Supplies (1)

JHS/SS
TD:4

JUNIOR HIGH SCHOOL SCIENCE AREAS IN NEED OF STRENGTHENING
PRINCIPAL AND TEACHER RESPONSES BY NUMBER OF MENTIONS

Facilities, equipment, supplies (74)

Lab instruction, more specific lab reports (23)

Reduced class size, more planning time (12)

More uniform textbooks, different textbooks (9)

Inservice for some teachers, help for some teachers, special training in labs (8)

Need for stronger chemistry base, more genetics, biology in ninth grade (4)

More cooperative planning, grade level planning (4)

Increase interest in science fair (4)

Updated lab manuals (3)

Build student interest, help students succeed (3)

Serving needs of low ability students (2)

New ideas, fresh approaches (2)

Lab safety (2)

Full year of earth science in ninth grade (2)

More field trips (2)

Updated films and media (2)

Magazines such as Science World, Scholastic Report (2)

Need for departmental communication (1)

Develop thinking skills (2)

Easier access to equipment (1)

5/JHS/SS
TD:4

Need for gifted program (1)

Emphasize research in science, what is being done (1)

More say on allocation of funds (1)

Improved offerings for advanced students (1)

Need for lab assistants (1)

Field trips (1)

Sharing ideas with other schools (1)

Alternative classrooms (1)

More use of community resources and resource people (1)

Integrate computing into science (1)

Small group activity (1)

Observe other teachers (1)

5/JHS/SS
TD:4

JUNIOR HIGH SCHOOL SCIENCE
SPECIAL PROVISIONS TO MEET STUDENT NEEDS
TEACHER RESPONSE

Provisions for High Ability Students

Seventy-seven percent (77%) of the teachers interviewed mentioned one or more special provisions that they made for advanced or high ability students. The following provisions were mentioned: grouping; gifted program; more depth and higher expectations; special labs and reports; written reports; research and term papers; projects, outside reading; extra and supplementary work; supplementary materials; emphasis on thinking skills; special books; films; filmstrips; special activities; different tests; special homework; essay questions; problem solving; individualization; notes; field trips; more vocabulary; biology; relating classwork to college and careers; and computer use.

Provisions for Average Ability Students

Sixty-eight percent (68%) of the teachers interviewed mentioned one or more special provisions that they made for regular or average students. The following provisions were mentioned: gearing work to student level; groupings; books geared to level; extra credit; modified tests; more written work; special lab requirements; and a contract system.

Provisions for Low Ability Students

Seventy percent (70%) of the teachers interviewed mentioned one more special provisions that they made for basic or low ability students. The following provisions were mentioned: grouping; using special books; special labs; individual attention and close monitoring; pacing work at student level; work sheets and other teacher made materials; reading tests and reading skills; workbooks; visual aids; sending books home; help after school; calling parents; special questions; reasonable expectations; placing weak students with strong students; emphasis on writing assignments; and use of the media center.

5/JHS/SS
TD:4

COMBINED JUNIOR HIGH SCHOOLS
NOTEWORTHY POINTS

1. Cooperative and caring teachers, lab instruction, facilities and equipment, meeting needs of students, and administrative support were the most often mentioned strengths of the science program as perceived by principals and teachers.

2. Facilities, equipment, and supplies, improved lab instruction, more planning time, better textbooks, and inservice for some teachers were the most often mentioned areas of the science program in need of strengthening as perceived by principals and teachers.

3. Average ratings of teachers were highest for lesson plans, teacher preparation, teacher satisfaction with assigned classes, helping students become aware of objectives, and laboratory discipline.

4. Average ratings of teachers were lowest for computer use, involvement in teacher selection, coordination with feeder schools, availability of computers, and involvement in developing the budget.

5. Average years teaching experience was 12.

6. Of the 157 science teachers, 31% held a Rank 2 or higher certificate.

7. Over one-fifth (21%) of the science teachers were teaching one or more science classes out-of-field.

8. In the five years prior to the 1983-84 school year, 63% of the teachers completed a college level content course in science.

9. Thirty percent (30%) of the teachers interviewed had completed a safety training course.

10. Average class size in science was 27.

11. Biology was taught in the ninth grade at seven junior high schools.

12. The science fair was named as an exemplary activity by 25 (approximately one-third) of the interviewees.

13. Seventy percent (70%) of the teachers interviewed said that they made special provisions for basic or low ability students, 68% said that they made special provisions for regular or average ability students, and 77% said that they made special provisions for advanced or high ability students.

14. Teachers indicated that 19% of class time was devoted to laboratory experiences where students worked individually or in pairs.

15. The 1984 CTBS-U seventh grade science subtest median was 57. The national median was 50.

16. The 1984 CTBS-U ninth grade science subtest median was 60. The national median was 50.

5/TD/1
JR/HS/NP

APPENDIX B

INDIVIDUAL JUNIOR HIGH SCHOOLS

DATA SUMMARIES

Contents for each school:

1983-84 Science Profile
Ratings And Ranks By Item
Ratings and Ranks By Rank
Teacher Response Percentages
CTBS-U Science Subtest Results
Noteworthy Points

Schools:

Apopka Junior..... 40
Carver..... 47
Conway..... 54
Glenridge..... 61
Howard..... 68
Jackson..... 75
Lakeview..... 82
Lee..... 89
Liberty..... 96
Lockhart..... 103
Maitland..... 110
Meadowbrook..... 117
Memorial..... 124
Ocoee..... 131
Robinswood..... 138
Union Park..... 145
Walker..... 152
Westridge..... 159
Winter Park Junior..... 166

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
APOPKA JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 13 Life 7 Physical Science 3 Earth Science 5
General Science 0 Biology 0 Teaching two different science subjects 2

Rank 3 12, 92 % Rank 2 1, 8 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 14 First Year Teachers 2
Took at least 1 college science course in prior 5 years 4, 31 %
Took a science methods course at some time 8, 62 %
Teaching One or More Classes Out-Of-Field (OOF) 4, 31 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1395 % Minority 33

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1273	91	51	25	11	22	262	21
Life	476	34	19	25	3	16	85	18
Physical Sci	406	29	15	27	5	33	142	35
Earth Science	391	28	17	23	3	18	35	9
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 44 9th Grade Median 48

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Lab instruction, especially 7th grade
2 Excellent program for advanced students
3 Teachers
4 Administrative support
5 Facilities

Needs (most frequently mentioned)

1 Lab work, especially in grade 8
2 Providing rooms for floating teachers
3 More uniformity in textbooks
4 Equipment

Highest Rated Questionnaire Items (teachers)

1 Class discipline
2 Lab discipline
3 Lesson plans and instruction
4 Selecting science courses
5 Administrative support
6 Teacher satisfaction

Lowest Rated Questionnaire Items (teachers)

1 Teacher selection
2 District tests
3 Involvement in clubs
4 Coordination between schools
5 Laboratories

5/TD
APOPKA/J
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
APOPKA JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.33	36.5
07	Laboratories	1.00	54.0
08	Equipment	3.00	41.5
09	Supplies	3.33	36.5
10	Safety Knowledge	4.33	14.5
11	Textbooks	4.67	8.5
12	Manuals	3.50	32.5
13	Resources	2.33	46.0
14	Media	4.00	20.5
15	Avail Computers	2.00	48.0
16	Computer Use	1.50	50.5
17	Community in Class	2.67	44.5
18	Extend Prog to Comm	2.00	48.0
19	Parents aware	3.33	36.5
23	Career Opportunities	4.00	20.5
24	Prep for Future in Sci	4.00	20.5
25	Selecting Sci Courses	5.00	3.5
26	Objectives Awareness	3.67	27.5
27	Coor Between Schools	1.00	54.0
28	Coor with Math	3.33	36.5
29	Coor with Feeders	3.33	36.5
30	Lesson Plans and Inst	5.00	3.5
35	Homework	4.00	20.5
36	Manage Labs	4.33	14.5
37	Class Discipline	5.00	3.5
38	Lab Discipline	5.00	3.5
39	Involve in Clubs	1.00	54.0
40	Class Size	3.67	27.5
41	Lab Class Size	1.50	50.5
42	Library Research	2.67	44.5
43	Lab Skills	3.50	32.5
44	Textbook Skills	3.67	27.5
45	Student Enthusiasm	3.67	27.5
46	On Task in Class	4.33	14.5
47	On Task in Lab	4.00	20.5
48	Teacher Tests and Plans	4.00	20.5
49	Teach Tests and Advice	4.67	8.5
50	Required Reading	2.00	48.0
51	District Tests	1.00	54.0
52	Essay Questions	3.00	41.5
53	Graphs on Tests	3.67	27.5
54	Process Skills on Tests	3.67	27.5
55	Reporting Progress	4.33	14.5
60	Inservice	3.00	41.5
61	Chairperson	4.50	11.0
62	Science Coordinator	4.33	14.5
63	Teacher Preparation	4.67	8.5
64	Admin Support	5.00	3.5
65	Teacher Satisfaction	5.00	3.5
66	Teacher Selection	1.00	54.0
67	Textbook Selection	4.67	8.5
68	Library Acquisitions	3.33	36.5
69	Involve With Guidance	3.67	27.5
70	Planning Time	3.67	27.5
71	Developing Budget	3.00	41.5
72	Using Funds	4.33	14.5

5/TD
APOPKA/J/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
APOPKA JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
37	Class Discipline	5.00	3.5
38	Lab Discipline	5.00	3.5
30	Lesson Plans and Inst	5.00	3.5
25	Selecting Sci Courses	5.00	3.5
64	Admin Support	5.00	3.5
65	Teacher Satisfaction	5.00	3.5
11	Textbooks	4.67	8.5
63	Teacher Preparation	4.67	8.5
49	Teach Tests and Advice	4.67	8.5
67	Textbook Selection	4.67	8.5
61	Chairperson	4.50	11.0
10	Safety Knowledge	4.33	14.5
36	Manage Labs	4.33	14.5
46	On Task in Class	4.33	14.5
55	Reporting Progress	4.33	14.5
62	Science Coordinator	4.33	14.5
72	Using Funds	4.33	14.5
14	Media	4.00	20.5
23	Career Opportunities	4.00	20.5
35	Homework	4.00	20.5
47	On Task in Lab	4.00	20.5
24	Prep for Future in Sci	4.00	20.5
48	Teacher Tests and Plans	4.00	20.5
26	Objectives Awareness	3.67	27.5
40	Class Size	3.67	27.5
44	Textbook Skills	3.67	27.5
45	Student Enthusiasm	3.67	27.5
53	Graphs on Tests	3.67	27.5
70	Planning Time	3.67	27.5
54	Process Skills on Tests	3.67	27.5
69	Involve With Guidance	3.67	27.5
12	Manuals	3.50	32.5
43	Lab Skills	3.50	32.5
06	Classrooms	3.33	36.5
09	Supplies	3.33	36.5
19	Parents aware	3.33	36.5
28	Coor with Math	3.33	36.5
29	Coor with Feeders	3.33	36.5
68	Library Acquisitions	3.33	36.5
08	Equipment	3.00	41.5
52	Essay Questions	3.00	41.5
60	Inservice	3.00	41.5
71	Developing Budget	3.00	41.5
17	Community in Class	2.67	44.5
42	Library Research	2.67	44.5
13	Resources	2.33	46.0
15	Avail Computers	2.00	48.0
18	Extend Prog to Comm	2.00	48.0
50	Required Reading	2.00	48.0
16	Computer Use	1.50	50.5
41	Lab Class Size	1.50	50.5
07	Laboratories	1.00	54.0
27	Coor Between Schools	1.00	54.0
39	Involve in Clubs	1.00	54.0
51	District Tests	1.00	54.0
66	Teacher Selection	1.00	54.0

5/ID
APOPKA/J/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
APOPKA JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	33	0	67
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	67	0	33
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	67	33	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	67	33	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	67	33	0
59	Should common district-level exams be administered?	67	33	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	13
83	Discussion, all students have some opportunity to talk.	15
84	Recitation, students respond to teacher questions or assignments.	15
85	Demonstrations, teachers or students use concrete materials to illustrate points.	9
86	Laboratory, students work individually or in pairs.	12
87	Films, filmstrips, TV.	7
88	Field trips.	2
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	12
91	Outside speakers, either lecture or demonstration.	3
92	Small group work.	2
93	Reports from students.	1
94	Other, please specify.	2

5/TD
JR/SCI/QUE.3
2/1/84

March 27, 1984

MEMORANDUM

TO: WESLEY G. AMAN
Principal, Apopka Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
44	44	52	48

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	55	57	59	60	45	42	59	65	59	60	53	55
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	59	58	54	51	52	50	43	46	57	57	46	45

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/1s/554
cc: Dallas Maddron
Science Department Chairperson

APOPKA JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and the teachers perceived lab instruction in grade seven, programs for advanced students, teachers, administrative support, and facilities to be strengths of the science program.

2. The principal and the teachers indicated that the science program needs strengthening in the areas of lab work in the eighth grade, facilities (providing rooms for floating teachers), more uniformity in textbooks, and equipment.

3. Teachers gave their highest ratings to discipline in class and labs, lesson plans and instruction, student selection of science courses, administrative support, and teacher satisfaction with assignments.

4. Teachers gave their lowest ratings to involvement in teacher selection, use of district tests for planning instruction, involvement in clubs, coordination with programs in other junior high schools, and laboratories.

5. Eight percent (8%) of the teachers held a Rank 2 or higher certificate compared to 31% for the combined group of junior high school teachers.

6. Average teaching experience was 14 years compared to 12 years for the combined group.

7. Four teachers (31%) were teaching at least one science class out-of-field compared to 21% for the combined group.

8. In the five years prior to the 1983-84 school year, 31% of the science teachers said that they had completed at least one college level science content course. This compared to 63% for the combined group.

9. Teachers said that they devoted 12% of class time to laboratory experiences where students work individually or in pairs. This compared to 19% for the combined group.

10. The average class size for all science was 25 compared to 27 for the combined group of junior high schools.

11. The 1984 CTBS-U seventh grade science subtest median for Apopka Junior High School was 44 compared to the district median of 57.

12. The 1984 CTBS-U ninth grade science subtest median for Apopka Junior High School was 48 compared to the district median of 60.

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
CARVER JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 9 Life 2 Physical Science 2 Earth Science 5
General Science 0 Biology 0 Teaching two different science subjects 0

Rank 3 7, 78 % Rank 2 2, 22 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 12 First Year Teachers 0
Took at least 1 college science course in prior 5 years 7, 78 %
Took a science methods course at some time 7, 78 %
Teaching One or More Classes Out-Of-Field (OOF) 3, 33 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 788 % Minority 66

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	712	90	29	27	3	9	63	9
Life	277	31	10	28	0	0	0	0
Physical Sci	232	29	10	23	0	0	0	0
Earth Science	203	26	9	23	3	33	63	31
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 41 9th Grade Median 39

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Cooperative and caring teachers
2 Lab presentations
3 Concept learning

Needs (most frequently mentioned)

1 Facilities, equipment, and supplies
2 Serving needs of low ability students
3 Smaller classes

Highest Rated Questionnaire Items (teachers)

1 Safety knowledge
2 Teacher preparation
3 Teacher satisfaction
4 Textbook selection
5 Administrative support
6 Using funds

Lowest Rated Questionnaire Items (teachers)

1 Computer use
2 Developing budget
3 Availability of computers
4 Manuals

5/TD
CARVER
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CARVER JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	2.67	35.5
07	Laboratories	2.33	42.0
08	Equipment	2.33	42.0
09	Supplies	2.33	42.0
10	Safety Knowledge	4.67	2.5
11	Textbooks	3.00	28.5
12	Manuals	1.67	53.5
13	Resources	3.33	20.5
14	Media	3.33	20.5
15	Avail Computers	1.67	53.5
16	Computer Use	1.00	56.0
17	Community in Class	2.00	49.5
18	Extend Prog to Comm	3.00	28.5
19	Parents aware	2.33	42.0
23	Career Opportunities	2.67	35.5
24	Prep for Future in Sci	3.00	28.5
25	Selecting Sci Courses	3.67	14.0
26	Objectives Awareness	3.33	20.5
27	Coor Between Schools	3.67	14.0
28	Coor with Math	2.67	35.5
29	Coor with Feeders	2.00	49.5
30	Lesson Plans and Inst	3.67	14.0
35	Homework	3.00	28.5
36	Manage Labs	3.33	20.5
37	Class Discipline	4.00	8.5
38	Lab Discipline	4.00	8.5
39	Involve in Clubs	2.33	42.0
40	Class Size	2.33	42.0
41	Lab Class Size	2.00	49.5
42	Library Research	3.00	28.5
43	Lab Skills	2.33	42.0
44	Textbook Skills	3.00	28.5
45	Student Enthusiasm	3.00	28.5
46	On Task in Class	3.33	20.5
47	On Task in Lab	3.33	20.5
48	Teacher Tests and Plans	4.00	8.5
49	Teach Tests and Advice	3.67	14.0
50	Required Reading	2.33	42.0
51	District Tests	2.00	49.5
52	Essay Questions	2.33	42.0
53	Graphs on Tests	3.00	28.5
54	Process Skills on Tests	3.00	28.5
55	Reporting Progress	3.67	14.0
60	Inservice	3.00	28.5
61	Chairperson	4.00	8.5
62	Science Coordinator	3.67	14.0
63	Teacher Preparation	4.67	2.5
64	Admin Support	4.33	5.5
65	Teacher Satisfaction	4.67	2.5
66	Teacher Selection	2.00	49.5
67	Textbook Selection	4.67	2.5
68	Library Acquisitions	3.67	14.0
69	Involve With Guidance	2.67	35.5
70	Planning Time	2.00	49.5
71	Developing Budget	1.33	55.0
72	Using Funds	4.33	5.5

5/TD
CARVER/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CARVER JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
10	Safety Knowledge	4.67	2.5
63	Teacher Preparation	4.67	2.5
65	Teacher Satisfaction	4.67	2.5
67	Textbook Selection	4.67	2.5
64	Admin Support	4.33	5.5
72	Using Funds	4.33	5.5
37	Class Discipline	4.00	8.5
38	Lab Discipline	4.00	8.5
61	Chairperson	4.00	8.5
48	Teacher Tests and Plans	4.00	8.5
27	Coor Between Schools	3.67	14.0
55	Reporting Progress	3.67	14.0
62	Science Coordinator	3.67	14.0
68	Library Acquisitions	3.67	14.0
30	Lesson Plans and Inst	3.67	14.0
25	Selecting Sci Courses	3.67	14.0
49	Teach Tests and Advice	3.67	14.0
13	Resources	3.33	20.5
14	Media	3.33	20.5
26	Objectives Awareness	3.33	20.5
36	Manage Labs	3.33	20.5
46	On Task in Class	3.33	20.5
47	On Task in Lab	3.33	20.5
11	Textbooks	3.00	28.5
18	Extend Prog to Comm	3.00	28.5
35	Homework	3.00	28.5
42	Library Research	3.00	28.5
44	Textbook Skills	3.00	28.5
45	Student Enthusiasm	3.00	28.5
53	Graphs on Tests	3.00	28.5
60	Inservice	3.00	28.5
54	Process Skills on Tests	3.00	28.5
24	Prep for Future in Sci	3.00	28.5
06	Classrooms	2.67	35.5
23	Career Opportunities	2.67	35.5
28	Coor with Math	2.67	35.5
69	Involve With Guidance	2.67	35.5
07	Laboratories	2.33	42.0
08	Equipment	2.33	42.0
09	Supplies	2.33	42.0
19	Parents aware	2.33	42.0
39	Involve in Clubs	2.33	42.0
40	Class Size	2.33	42.0
43	Lab Skills	2.33	42.0
50	Required Reading	2.33	42.0
52	Essay Questions	2.33	42.0
17	Community in Class	2.00	49.5
29	Coor with Feeders	2.00	49.5
41	Lab Class Size	2.00	49.5
51	District Tests	2.00	49.5
66	Teacher Selection	2.00	49.5
70	Planning Time	2.00	49.5
12	Manuals	1.67	53.5
15	Avail Computers	1.67	53.5
71	Developing Budget	1.33	55.0
16	Computer Use	1.00	56.0

S/TD
CARVER/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CARVER JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	0	33
21	Have you completed a safety training course?	67	33	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	33	67	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	67	33	0
34	Do you deal with curriculum scope and sequence in your planning?	67	33	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	67	0
59	Should common district-level exams be administered?	33	67	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	16
83	Discussion, all students have some opportunity to talk.	14
84	Recitation, students respond to teacher questions or assignments.	12
85	Demonstrations, teachers or students use concrete materials to illustrate points.	12
86	Laboratory, students work individually or in pairs.	7
87	Films, filmstrips, TV.	2
88	Field trips.	1
89	Tests.	10
90	Deskwork, workbooks, and reading assignments.	20
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	2
93	Reports from students.	3
94	Other, please specify.	1

5/TD
JR/SCI/QUE.19
2/1/84

March 27, 1984

MEMORANDUM

TO: ERNEST BRADLEY
Principal, Carver Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
34	41	34	39

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade												
Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	[illegible]	67	61	63
Your School	50	56	54	59	38	39	54	61	49	55	48	49
9th Grade												
Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	53	58	47	48	43	47	37	36	50	49	40	43

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

CARVER JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived cooperative and caring teachers, lab presentations, and concept learning as the strengths of the science program.

2. The principal and teachers perceived facilities, equipment, and supplies, serving the needs of low ability students, and smaller classes as areas of the science program which need strengthening.

3. Teachers gave their highest ratings to knowledge of safety, teacher preparation and satisfaction, textbook selection, administrative support, and using budgeted funds.

4. Teachers gave their lowest ratings to computer use and availability, developing the budget, and laboratory manuals.

5. Two of nine teachers (22%) held a Rank 2 or higher certificate. This compared to 28% for the combined group of junior high school teachers.

6. Three teachers (33%) were teaching at least one science class out-of-field. This compared to 21% for the combined group.

7. Teachers indicated that 7% of class time was devoted to labs where students worked individually or in pairs. This compared to 19% for the combined group.

8. The minority population at Carver was 66% compared to 28% for the combined group of junior high schools.

9. In the five years prior to the 1983-84 school year, 78% of the teachers completed at least one college level science content course. This compared to 63% for the combined group of junior high teachers.

10. The 1984 CTBS-U seventh grade science subtest median for Carver Junior High School was 41 compared to the district median of 57.

11. The 1984 CTBS-U ninth grade science subtest median for Carver Junior High School was 39 compared to the district median of 60.

5/TD/1
JR/HS/NP.2

CRANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
CONWAY JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 10 Life 3 Physical Science 3 Earth Science 4
General Science 0 Biology 0 Teaching two different science subjects 0

Rank 3 7 , 70 % Rank 2 3 , 30 % Rank 1 or 1A 0 , 0 %

Average Years Teaching Experience 13 First Year Teachers 1
Took at least 1 college science course in prior 5 years 6 , 60 %
Took a science methods course at some time 4 , 40 %
Teaching One or More Classes Out-Of-Field (OOF) 1 , 10 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1263 % Minority 6

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1258	99	47	27	2	4	41	3
Life	408	32	15	27	0	0	0	0
Physical Sci	430	34	16	27	0	0	0	0
Earth Science	420	33	16	26	2	13	41	10
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 64 9th Grade Median 71

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Cooperative teachers
2 Two labs per week
3 Science fair
4 High standards
5 Varied activities
6 Equipment
7 Speakers

Needs (most frequently mentioned)

1 More lab involvement
2 More equipment, models, new furniture
3 More cooperative planning
4 Inservice for some teachers
5 Organization

Highest Rated Questionnaire Items (teachers)

1 Objectives awareness
2 Teacher preparation
3 Textbook selection
4 Classrooms
5 Teacher satisfaction
6 Library acquisitions
7 Using funds

Lowest Rated Questionnaire Items (teachers)

1 Developing budget
2 Teacher selection
3 Computer use
4 Coordination between schools
5 Coordination with feeder schools

5/TD
CONWAY
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CONWAY JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.67	5.5
07	Laboratories	3.67	31.0
08	Equipment	3.33	39.5
09	Supplies	4.00	20.0
10	Safety Knowledge	3.67	31.0
11	Textbooks	4.00	20.0
12	Manuals	4.00	20.0
13	Resources	4.00	20.0
14	Media	4.33	11.0
15	Avail Computers	2.67	48.5
16	Computer Use	1.00	55.0
17	Community in Class	3.33	39.5
18	Extend Prog to Comm	3.67	31.0
19	Parents aware	2.67	48.5
23	Career Opportunities	4.00	20.0
24	Prep for Future in Sci	3.33	39.5
25	Selecting Sci Courses	4.00	20.0
26	Objectives Awareness	5.00	2.0
27	Coor Between Schools	1.33	53.0
28	Coor with Math	3.33	39.5
29	Coor with Feeders	2.00	52.0
30	Lesson Plans and Inst	4.00	20.0
35	Homework	4.33	11.0
36	Manage Labs	4.00	20.0
37	Class Discipline	4.00	20.0
38	Lab Discipline	3.67	31.0
39	Involve in Clubs	2.67	48.5
40	Class Size	3.33	39.5
41	Lab Class Size	3.33	39.5
42	Library Research	3.67	31.0
43	Lab Skills	3.00	45.0
44	Textbook Skills	3.67	31.0
45	Student Enthusiasm	3.33	39.5
46	On Task in Class	4.00	20.0
47	On Task in Lab	4.33	11.0
48	Teacher Tests and Plans	3.67	31.0
49	Teach Tests and Advice	4.00	20.0
50	Required Reading	3.00	45.0
51	District Tests	2.50	51.0
52	Essay Questions	4.33	11.0
53	Graphs on Tests	3.67	31.0
54	Process Skills on Tests	4.00	20.0
55	Reporting Progress	3.33	39.5
60	Inservice	3.00	45.0
61	Chairperson	4.50	8.0
62	Science Coordinator	4.33	11.0
63	Teacher Preparation	5.00	2.0
64	Admin Support	3.67	31.0
65	Teacher Satisfaction	4.67	5.5
66	Teacher Selection	1.00	55.0
67	Textbook Selection	5.00	2.0
68	Library Acquisitions	4.67	5.5
69	Involve With Guidance	4.00	20.0
70	Planning Time	2.67	48.5
71	Developing Budget	1.00	55.0
72	Using Funds	4.67	5.5

5/TD
CONWAY/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CONWAY JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
26	Objectives Awareness	5.00	2.0
63	Teacher Preparation	5.00	2.0
67	Textbook Selection	5.00	2.0
06	Classrooms	4.67	5.5
65	Teacher Satisfaction	4.67	5.5
68	Library Acquisitions	4.67	5.5
72	Using Funds	4.67	5.5
61	Chairperson	4.50	8.0
14	Media	4.33	11.0
35	Homework	4.33	11.0
47	On Task in Lab	4.33	11.0
52	Essay Questions	4.33	11.0
62	Science Coordinator	4.33	11.0
09	Supplies	4.00	20.0
11	Textbooks	4.00	20.0
12	Manuals	4.00	20.0
13	Resources	4.00	20.0
23	Career Opportunities	4.00	20.0
36	Manage Labs	4.00	20.0
37	Class Discipline	4.00	20.0
46	On Task in Class	4.00	20.0
30	Lesson Plans and Inst	4.00	20.0
54	Process Skills o Tests	4.00	20.0
25	Selecting Sci Courses	4.00	20.0
69	Involve With Guidance	4.00	20.0
49	Teach Tests and Advice	4.00	20.0
07	Laboratories	3.67	31.0
10	Safety Knowledge	3.67	31.0
18	Extend Prog to Comm	3.67	31.0
38	Lab Discipline	3.67	31.0
42	Library Reserrch	3.67	31.0
44	Textbook Skills	3.67	31.0
53	Graphs on Tests	3.67	31.0
64	Admin Support	3.67	31.0
48	Teacher Tests and Plans	3.67	31.0
24	Prep for Future in Sci	3.33	39.5
08	Equipment	3.33	39.5
17	Community in Class	3.33	39.5
28	Coor with Math	3.33	39.5
40	Class Size	3.33	39.5
41	Lab Class Size	3.33	39.5
45	Student Enthusiasm	3.33	39.5
55	Reporting Progress	3.33	39.5
43	Lab Skills	3.00	45.0
50	Required Reading	3.00	45.0
60	Inservice	3.00	45.0
15	Avail Computers	2.67	48.5
19	Parents aware	2.67	48.5
39	Involve in Clubs	2.67	48.5
70	Planning Time	2.67	48.5
51	District Tests	2.50	51.0
29	Coor with Feeders	2.00	52.0
27	Coor Between Schools	1.33	53.0
16	Computer Use	1.00	55.0
66	Teacher Selection	1.00	55.0
71	Developing Budget	1.00	55.0

5/TD
CONWAY/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CONWAY JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	67	0	33
31	Are there established procedures for monitoring lesson plans?	67	33	0
32	Do you think that a science program for the gifted should be provided at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	67	33	0
56	Are laboratory experiences evaluated and used to determine letter grades?	67	33	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	0	67
59	Should common district-level exams be administered?	67	0	33

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	7
83	Discussion, all students have some opportunity to talk.	20
84	Recitation, students respond to teacher questions or assignments.	12
85	Demonstrations, teachers or students use concrete materials to illustrate points.	12
86	Laboratory, students work individually or in pairs.	22
87	Films, filmstrips, TV.	10
88	Field trips.	1
89	Tests.	7
90	Deskwork, workbooks, and reading assignments.	8
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	1
93	Reports from students.	1
94	Other, please specify.	0

5/TD
JR/SCI/QUE.17
2/1/84

March 27, 198[illegible]

MEMORANDUM

TO: HOWARD S. FLEMING
Principal, Conway Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
64	64	67	71

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	68	70	71	72	58	58	76	77	73	7[illegible]	69	68
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	68	72	60	64	60	63	54	57	68	68	57	61

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

CONWAY JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, laboratories, the science fair, high standards, varied activities, equipment, and outside speakers to be strengths of the science program.

2. The principal and teachers perceived more lab experience, more equipment, more cooperative planning, inservice for some teachers, and organization to be areas of the science program in need of strengthening.

3. Teachers gave their highest ratings to helping students become aware of objectives, teacher preparation and satisfaction with teaching assignments, textbook selection, classroom facilities, involvement in library acquisitions, and using budgeted funds.

4. Teachers gave their lowest ratings to involvement in developing the budget, involvement in teacher selection, computer use, and coordination with other junior high schools and feeder schools.

5. One teacher (10%) was teaching at least one science course out-of-field. This compared to 21% for the combined group of junior high school teachers.

6. The minority population was 6% compared to 28% for the combined group of junior high schools.

7. The 1984 CTBS-U seventh grade science subtest median for Conway Junior High School was 64 compared to the district median of 57.

8. The 1984 CTBS-U ninth grade science subtest median for Conway Junior High School was 71 compared to the district median of 60.

5/TD/1
JR/HS/NP:3

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
GLENRIDGE JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 10 Life 3 Physical Science 4 Earth Science 3
General Science 0 Biology 0 Teaching two different science subjects 0

Rank 3 5, 50 % Rank 2 3, 30 % Rank 1 or 1A 2, 20 %

Average Years Teaching Experience 15 First Year Teachers 0
Took at least 1 college science course in prior 5 years 9, 90 %
Took a science methods course at some time 10, 100%
Teaching One or More Classes Out-Of-Field (OOF) 0, 0 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1306 % Minority 7

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1236	95	46	27	0	0	0	0
Life	433	33	15	29	0	0	0	0
Physical Sci	381	29	16	24	0	0	0	0
Earth Science	422	32	15	28	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 71 9th Grade Median 71

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Faculty
2 Hands-on experiences
3 Involvement in science fairs
4 Instruction in all areas
5 Clubs

Needs (most frequently mentioned)

1 Facilities for floating teachers
2 More labs
3 Fresh approaches, new ideas
4 Biology
5 Storage room
6 Share ideas with other schools

Highest Rated Questionnaire Items (teachers)

1 Media
2 Class discipline
3 Textbook skills
4 Teacher satisfaction

Lowest Rated Questionnaire Items (teachers)

1 Teacher selection
2 Coordination with feeder schools
3 Coordination between schools
4 District tests
5 Computer use

5/TD
GLENRIDGE
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
GLENRIDGE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.00	35.0
07	Laboratories	2.00	49.5
08	Equipment	3.67	19.0
09	Supplies	3.67	19.0
10	Safety Knowledge	3.67	19.0
11	Textbooks	3.33	28.0
12	Manuals	3.00	35.0
13	Resources	4.00	9.0
14	Media	5.00	1.0
15	Avail Computers	2.67	41.5
16	Computer Use	1.33	52.5
17	Community in Class	2.67	41.5
18	Extend Proc to Comm	2.67	41.5
19	Parents aware	3.00	35.0
23	Career Opportunities	3.67	19.0
24	Prep for Future in Sci	3.67	19.0
25	Selecting Sci Courses	4.00	9.0
26	Objectives Awareness	3.67	19.0
27	Coor Between Schools	1.00	55.5
28	Coor with Math	2.33	46.0
29	Coor with Feeders	1.00	55.5
30	Lesson Plans and Inst	4.00	9.0
35	Homework	3.00	35.0
36	Manage Labs	4.00	9.0
37	Class Discipline	4.33	3.0
38	Lab Discipline	4.00	9.0
39	Involve in Clubs	2.67	41.5
40	Class Size	3.67	19.0
41	Lab Class Size	3.33	28.0
42	Library Research	3.33	28.0
43	Lab Skills	3.00	35.0
44	Textbook Skills	4.33	3.0
45	Student Enthusiasm	4.00	9.0
46	On Task in Class	4.00	9.0
47	On Task in Lab	3.33	28.0
48	Teacher Tests and Plans	3.00	35.0
49	Teach Tests and Advice	3.67	19.0
50	Required Reading	2.00	49.5
51	District Tests	1.33	52.5
52	Essay Questions	3.00	35.0
53	Graphs on Tests	3.33	28.0
54	Process Skills on Tests	3.67	19.0
55	Reporting Progress	3.33	28.0
60	Inservice	2.33	46.0
61	Chairperson	3.67	19.0
62	Science Coordinator	3.67	19.0
63	Teacher Preparation	4.00	9.0
64	Admin Support	4.00	9.0
65	Teacher Satisfaction	4.33	3.0
66	Teacher Selection	1.00	55.5
67	Textbook Selection	2.00	49.5
68	Library Acquisitions	2.67	41.5
69	Involve With Guidance	2.00	49.5
70	Planning Time	2.33	46.0
71	Developing Budget	2.67	41.5
72	Using Funds	3.33	28.0

5/TD
GLENRIDGE/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
GLENRIDGE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
14	Media	5.00	1.0
37	Class Discipline	4.33	3.0
44	Textbook Skills	4.33	3.0
65	Teacher Satisfaction	4.33	3.0
13	Resources	4.00	9.0
36	Manage Labs	4.00	9.0
38	Lab Discipline	4.00	9.0
45	Student Enthusiasm	4.00	9.0
46	On Task in Class	4.00	9.0
63	Teacher Preparation	4.00	9.0
64	Admin Support	4.00	9.0
30	Lesson Plans and Inst	4.00	9.0
25	Selecting Sci Courses	4.00	9.0
08	Equipment	3.67	19.0
09	Supplies	3.67	19.0
10	Safety Knowledge	3.67	19.0
23	Career Opportunities	3.67	19.0
26	Objectives Awareness	3.67	19.0
40	Class Size	3.67	19.0
61	Chairperson	3.67	19.0
62	Science Coordinator	3.67	19.0
24	Prep for Future in Sci	3.67	19.0
49	Teach Tests and Advice	3.67	19.0
54	Process Skills on Tests	3.67	19.0
11	Textbooks	3.33	28.0
41	Lab Class Size	3.33	28.0
42	Library Research	3.33	28.0
47	On Task in Lab	3.33	28.0
53	Graphs on Tests	3.33	28.0
55	Reporting Progress	3.33	28.0
72	Using Funds	3.33	28.0
48	Teacher Tests and Plans	3.00	35.0
06	Classrooms	3.00	35.0
12	Manuals	3.00	35.0
19	Parents aware	3.00	35.0
35	Homework	3.00	35.0
43	Lab Skills	3.00	35.0
52	Essay Questions	3.00	35.0
15	Avail Computers	2.67	41.5
17	Community in Class	2.67	41.5
18	Extend Prog to Comm	2.67	41.5
39	Involve in Clubs	2.67	41.5
68	Library Acquisitions	2.67	41.5
71	Developing Budget	2.67	41.5
28	Coor with Math	2.33	46.0
60	Inservice	2.33	46.0
70	Planning Time	2.33	46.0
07	Laboratories	2.00	49.5
50	Required Reading	2.00	49.5
67	Textbook Selection	2.00	49.5
69	Involve With Guidance	2.00	49.5
16	Computer Use	1.33	52.5
51	District Tests	1.33	52.5
27	Coor Between Schools	1.00	55.5
29	Coor with Feeders	1.00	55.5
66	Teacher Selection	1.00	55.5

5/TD
GLENRIDGE/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
GLENRIDGE JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	33	67	0
32	Do you think that a science program for the gifted should be provided at your school?	67	33	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	67	33	0
34	Do you deal with curriculum scope and sequence in your planning?	67	33	0
56	Are laboratory experiences evaluated and used to determine letter grades?	67	33	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	67	33	0
59	Should common district-level exams be administered?	67	33	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	17
83	Discussion, all students have some opportunity to talk.	8
84	Recitation, students respond to teacher questions or assignments.	5
85	Demonstrations, teachers or students use concrete materials to illustrate points.	6
86	Laboratory, students work individually or in pairs.	42
87	Films, filmstrips, TV.	5
88	Field trips.	1
89	Tests.	2
90	Deskwork, workbooks, and reading assignments.	8
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	2
93	Reports from students.	2
94	Other, please specify.	0

5/TD
JR/SCI/QUE.7
2/1/84

March 27, 1984

MEMORANDUM

TO: ROBERT HARLAND
Principal, Glenridge Junior High School

ATTENTION: JACQUELYN H. STILL jhs
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK WEB
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
64	71	67	71

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	66	69	71	73	58	60	76	78	71	72	67	71
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	69	73	62	67	60	63	52	55	65	67	56	61

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

GLENRIDGE JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived the faculty, hands-on experiences, involvement in science fairs, instruction, and student involvement in clubs as strengths of the science program.

2. The principal and teachers perceived facilities, more labs, new ideas, a course in biology, a storage room, and sharing ideas with other schools as areas of the science program that need strengthening.

3. Fifty percent (50%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group.

4. The average teaching experience was 15 years compared to 12 years for the combined group.

5. Nine of ten (90%) of the science teachers completed at least one college level science content course in the five years prior to the 1983-84 school year. This compared to 63% for the combined group.

6. No science courses were being taught by out-of-field teachers.

7. The minority population was 7% compared to 28% for the combined group.

8. Teachers indicated that 42% of class time was devoted to laboratory experiences where students work individually or in pairs. This compared to 19% for the combined group.

9. The 1984 CTBS-U seventh grade science subtest median for Glenridge Junior High School was 71 compared to the district median of 57.

10. The 1984 CTBS-U ninth grade science subtest median for Glenridge Junior High School was 71 compared to the district median of 60.

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
HOWARD JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 8 Life 2 Physical Science 2 Earth Science 4
General Science 0 Biology 0 Teaching two different science subjects 0

Rank 3 4, 50 % Rank 2 4, 50 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 8 First Year Teachers 1
Took at least 1 college science course in prior 5 years 5, 56 %
Took a science methods course at some time 5, 56 %
Teaching One or More Classes Out-Of-Field (OOF) 4, 44 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 830 % Minority 57

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	755	91	29	26	9	31	254	34
Life	272	33	10	27	0	0	0	0
Physical Sci	225	27	10	23	0	0	0	0
Earth Science	258	31	9	29	9	100	254	98
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 48 9th Grade Median 39

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Knowledgeable, caring teachers
2 Meet needs of individual students
3 Lab experiences
4 Study of human body and animals
5 Exposure to community resources

Needs (most frequently mentioned)

1 Lab facilities, equipment, and supplies
2 More hands-on lab experiences
3 Textbooks
4 Media
5 Develop interest in science fair

Highest Rated Questionnaire Items (teachers)

1 Availability of computers
2 Lesson plans and instruction
3 Teacher preparation
4 Teacher satisfaction
5 Chairperson

Lowest Rated Questionnaire Items (teachers)

1 Teacher selection
2 Coordination with feeder schools
3 Computer use
4 Developing budget
5 Involvement with guidance
6 Involvement in clubs
7 Lab manuals

5/TD
HOWARD
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
HOWARD JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.33	24.0
07	Laboratories	2.67	40.0
08	Equipment	2.67	40.0
09	Supplies	3.00	31.5
10	Safety Knowledge	4.33	8.5
11	Textbooks	3.67	17.5
12	Manuals	2.00	51.0
13	Resources	3.00	31.5
14	Media	4.33	8.0
15	Avail Computers	5.00	1.0
16	Computer Use	1.00	55.0
17	Community in Class	2.33	47.0
18	Extend Prog to Comm	2.67	40.0
19	Parents aware	2.67	40.0
23	Career Opportunities	3.67	17.5
24	Prep for Future in Sci	3.33	24.0
25	Selecting Sci Courses	4.00	12.0
26	Objectives Awareness	4.33	8.0
27	Coor Between Schools	3.00	31.5
28	Coor with Math	2.33	47.0
29	Coor with Feeders	1.00	55.0
30	Lesson Plans and Inst	4.67	3.0
35	Homework	3.33	24.0
36	Manage Labs	3.00	31.5
37	Class Discipline	3.67	17.5
38	Lab Discipline	4.33	8.0
39	Involve in Clubs	2.00	51.0
40	Class Size	2.67	40.0
41	Lab Class Size	2.33	47.0
42	Library Research	3.67	17.5
43	Lab Skills	3.00	31.5
44	Textbook Skills	3.33	24.0
45	Student Enthusiasm	2.33	47.0
46	On Task in Class	3.67	17.5
47	On Task in Lab	3.67	17.5
48	Teacher Tests and Plans	3.67	17.5
49	Teach Tests and Advice	4.00	12.0
50	Required Reading	2.33	47.0
51	District Tests	2.50	44.0
52	Essay Questions	3.00	31.5
53	Graphs on Tests	3.00	31.5
54	Process Skills on Tests	3.00	31.5
55	Reporting Progress	3.67	17.5
60	Inservice	3.00	31.5
61	Chairperson	4.50	5.0
62	Science Coordinator	4.00	12.0
63	Teacher Preparation	4.67	3.0
64	Admin Support	4.33	8.0
65	Teacher Satisfaction	4.67	3.0
66	Teacher Selection	1.00	55.0
67	Textbook Selection	3.33	24.0
68	Library Acquisitions	2.67	40.0
69	Involve With Guidance	2.00	51.0
70	Planning Time	2.67	40.0
71	Developing Budget	1.33	53.0
72	Using Funds	3.00	31.5

5/TD
HOWARD/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
HOWARD JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
15	Avail Computers	5.00	1.0
30	Lesson Plans and Inst	4.67	3.0
63	Teacher Preparation	4.67	3.0
65	Teacher Satisfaction	4.67	3.0
61	Chairperson	4.50	5.0
10	Safety Knowledge	4.33	8.0
14	Media	4.33	8.0
26	Objectives Awareness	4.33	8.0
38	Lab Discipline	4.33	8.0
64	Admin Support	4.33	8.0
25	Selecting Sci Courses	4.00	12.0
49	Teach Tests and Advice	4.00	12.0
62	Science Coordinator	4.00	12.0
11	Textbooks	3.67	17.5
23	Career Opportunities	3.67	17.5
37	Class Discipline	3.67	17.5
42	Library Research	3.67	17.5
46	On Task in Class	3.67	17.5
47	On Task in Lab	3.67	17.5
48	Teacher Tests and Plans	3.67	17.5
55	Reporting Progress	3.67	17.5
06	Classrooms	3.33	24.0
24	Prep for Future in Sci	3.33	24.0
35	Homework	3.33	24.0
44	Textbook Skills	3.33	24.0
67	Textbook Selection	3.33	24.0
09	Supplies	3.00	31.5
13	Resources	3.00	31.5
27	Coor Between Schools	3.00	31.5
36	Manage Labs	3.00	31.5
43	Lab Skills	3.00	31.5
52	Essay Questions	3.00	31.5
53	Graphs on Tests	3.00	31.5
54	Process Skills on Tests	3.00	31.5
60	Inservice	3.00	31.5
72	Using Funds	3.00	31.5
07	Laboratories	2.67	40.0
08	Equipment	2.67	40.0
18	Extend Prog to Comm	2.67	40.0
19	Parents aware	2.67	40.0
40	Class Size	2.67	40.0
68	Library Acquisitions	2.67	40.0
70	Planning Time	2.67	40.0
51	District Tests	2.50	44.0
17	Community in Class	2.33	47.0
28	Coor with Math	2.33	47.0
41	Lab Class Size	2.33	47.0
45	Student Enthusiasm	2.33	47.0
50	Required Reading	2.33	47.0
12	Manuals	2.00	51.0
39	Involve in Clubs	2.00	51.0
69	Involve With Guidance	2.00	51.0
71	Developing Budget	1.33	53.0
16	Computer Use	1.00	55.0
29	Coor with Feeders	1.00	55.0
66	Teacher Selection	1.00	55.0

S/TD
HOWARD/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
HOWARD JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	33	0	67
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	67	0
59	Should common district-level exams be administered?	67	33	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	13
83	Discussion, all students have some opportunity to talk.	9
84	Recitation, students respond to teacher questions or assignments.	6
85	Demonstrations, teachers or students use concrete materials to illustrate points.	10
86	Laboratory, students work individually or in pairs.	6
87	Films, filmstrips, TV.	12
88	Field trips.	1
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	23
91	Outside speakers, either lecture or demonstration.	5
92	Small group work.	5
93	Reports from students.	7
94	Other, please specify.	0

5/TD
JR/SCI/QUE.1
2/1/84

March 27, 1984

MEMORANDUM

TO: JESSE R. LANE, JR.
Principal, Howard Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
38	48	34	39

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	51	60	56	64	40	44	59	64	54	61	54	56
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	54	57	48	50	44	48	38	39	51	51	41	44

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

HOWARD JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, meeting needs of students, lab experiences, human and animal study, and use of community resources as strengths of the science program.

2. The principal and teachers perceived lab facilities, equipment, and supplies, lab experiences, textbooks, media, and developing interest in the science fair as areas of the science program which need strengthening.

3. Fifty-six percent (56%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group of junior high science teachers.

4. The average teaching experience was eight years compared to 12 years for the combined group.

5. Forty-four percent (44%) of the teachers were teaching at least one science course out-of-field. This compared to 21% for the combined group.

6. All teachers interviewed said that they used laboratory experiences to determine grades for students.

7. Interviewees indicated that they devoted 6% of their time to laboratory experiences. This compared to 19% for the combined group.

8. The minority population at Howard was 57% compared to 28% for the combined junior high schools.

9. The 1984 CTBS-U seventh grade science subtest median for Howard Junior High School was 48 compared to the district median of 57.

10. The 1984 CTBS-U ninth grade science subtest median for Howard Junior High School was 39 compared to the district median of 60.

5/TD/1
JR/HS/NP.5

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
JACKSON JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 8 Life 3 Physical Science 4 Earth Science 2
General Science 0 Biology 1 Teaching two different science subjects 2

Rank 3 4 , 50 % Rank 2 3 , 38 % Rank 1 or 1A 1 , 12 %

Average Years Teaching Experience 17 First Year Teachers 0
Took at least 1 college science course in prior 5 years 4 , 50 %
Took a science methods course at some time 8 , 100%
Teaching One or More Classes Out-Of-Field (OOF) 0 , 0 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1097 % Minority 18

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	915	83	32	29	0	0	0	0
Life	336	31	12	28	0	0	0	0
Physical Sci	368	34	12	31	0	0	0	0
Earth Science	159	14	6	27	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	52	5	2	26	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 64 9th Grade Median 60

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Administrative support
2 Cooperative and caring teachers
3 Program structure

Needs (most frequently mentioned)

1 Facilities, equipment, supplies
2 Stronger base in chemistry
3 More planning at grade level

Highest Rated Questionnaire Items (teachers)

1 Safety knowledge
2 Resources
3 Media
4 Selecting science courses
5 Objectives awareness

Lowest Rated Questionnaire Items (teachers)

1 Availability of computers
2 Teacher selection
3 Laboratory class size
4 Class size
5 Developing budget

5/TD
JACKSON
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JACKSON JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.67	22.0
07	Laboratories	4.67	22.0
08	Equipment	4.33	32.0
09	Supplies	4.00	38.5
10	Safety Knowledge	5.00	8.5
11	Textbooks	3.00	49.0
12	Manuals	3.33	47.0
13	Resources	5.00	8.5
14	Media	5.00	8.5
15	Avail Computers	1.00	56.0
16	Computer Use	3.67	43.5
17	Community in Class	4.00	38.5
18	Extend Prog to Comm	4.33	32.0
19	Parents aware	4.67	22.0
23	Career Opportunities	4.33	32.0
24	Prep for Future in Sci	4.67	22.0
25	Selecting Sci Courses	5.00	8.5
26	Objectives Awareness	5.00	8.5
27	Coor Between Schools	4.50	28.0
28	Coor with Math	3.50	46.0
29	Coor with Feeders	3.00	49.0
30	Lesson Plans and Inst	5.00	8.5
35	Homework	4.33	32.0
36	Manage Labs	5.00	8.5
37	Class Discipline	4.67	22.0
38	Lab Discipline	4.67	22.0
39	Involve in Clubs	2.67	51.0
40	Class Size	2.33	53.5
41	Lab Class Size	2.33	53.5
42	Library Research	4.67	22.0
43	Lab Skills	4.33	32.0
44	Textbook Skills	5.00	8.5
45	Student Enthusiasm	4.00	38.5
46	On Task in Class	5.00	8.5
47	On Task in Lab	5.00	8.5
48	Teacher Tests and Plans	4.67	22.0
49	Teach Tests and Advice	4.33	32.0
50	Required Reading	3.67	43.5
51	District Tests	4.00	38.5
52	Essay Questions	4.00	38.5
53	Graphs on Tests	3.67	43.5
54	Process Skills on Tests	4.67	22.0
55	Reporting Progress	4.67	22.0
60	Inservice	4.33	32.0
61	Chairperson	5.00	8.5
62	Science Coordinator	5.00	8.5
63	Teacher Preparation	5.00	8.5
64	Admin Support	5.00	8.5
65	Teacher Satisfaction	5.00	8.5
66	Teacher Selection	1.67	55.0
67	Textbook Selection	5.00	8.5
68	Library Acquisitions	3.00	49.0
69	Involve With Guidance	3.67	43.5
70	Planning Time	4.00	38.5
71	Developing Budget	2.50	52.0
72	Using Funds	4.67	22.0

5/TD
JACKSON/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JACKSON JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
10	Safety Knowledge	5.00	8.5
13	Resources	5.00	8.5
14	Media	5.00	8.5
25	Selecting Sci Courses	5.00	8.5
26	Objectives Awareness	5.00	8.5
30	Lesson Plans and Inst	5.00	8.5
36	Manage Labs	5.00	8.5
44	Textbook Skills	5.00	8.5
46	On Task in Class	5.00	8.5
47	On Task in Lab	5.00	8.5
61	Chairperson	5.00	8.5
62	Science Coordinator	5.00	8.5
63	Teacher Preparation	5.00	8.5
64	Admin Support	5.00	8.5
65	Teacher Satisfaction	5.00	8.5
67	Textbook Selection	5.00	8.5
06	Classrooms	4.67	22.0
07	Laboratories	4.67	22.0
19	Parents aware	4.67	22.0
24	Prep for Future in Sci	4.67	22.0
37	Class Discipline	4.67	22.0
38	Lab Discipline	4.67	22.0
42	Library Research	4.67	22.0
48	Teacher Tests and Plans	4.67	22.0
54	Process Skills on Tests	4.67	22.0
55	Reporting Progress	4.67	22.0
72	Using Funds	4.67	22.0
27	Coor Between Schools	4.50	28.0
08	Equipment	4.33	32.0
18	Extend Prog to Comm	4.33	32.0
23	Career Opportunities	4.33	32.0
35	Homework	4.33	32.0
43	Lab Skills	4.33	32.0
49	Teach Tests and Advice	4.33	32.0
60	Inservice	4.33	32.0
09	Supplies	4.00	38.5
17	Community in Class	4.00	38.5
45	Student Enthusiasm	4.00	38.5
51	District Tests	4.00	38.5
52	Essay Questions	4.00	38.5
70	Planning Time	4.00	38.5
16	Computer Use	3.67	43.5
50	Required Reading	3.67	43.5
53	Graphs on Tests	3.67	43.5
69	Involve With Guidance	3.67	43.5
28	Coor with Math	3.50	46.0
12	Manuals	3.33	47.0
11	Textbooks	3.00	49.0
29	Coor with Feeders	3.00	49.0
68	Library Acquisitions	3.00	49.0
39	Involve in Clubs	2.67	51.0
71	Developing Budget	2.50	52.0
40	Class Size	2.33	53.5
41	Lab Class Size	2.33	53.5
66	Teacher Selection	1.67	55.0
15	Avail Computers	1.00	56.0

5/TD
JACKSON/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JACKSON JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	67	33	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	67	33	0
32	Do you think that a science program for the gifted should be provided at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	67	0
59	Should common district-level exams be administered?	0	100	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	27
83	Discussion, all students have some opportunity to talk.	13
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	7
86	Laboratory, students work individually or in pairs.	12
87	Films, filmstrips, TV.	5
88	Field trips.	2
89	Tests.	7
90	Deskwork, workbooks, and reading assignments.	7
91	Outside speakers, either lecture or demonstration.	4
92	Small group work.	3
93	Reports from students.	5
94	Other, please specify.	0

5/TD
JR/SCI/QUE.13
2/1/84

March 27, 1984

MEMORANDUM

TO: LESTER DABBS, JR.
Principal, Jackson Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
57	64	52	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
57	64	52	60

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	64	66	67	69	50	54	70	73	66	69	62	66
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	61	64	53	58	52	55	44	49	58	60	50	53

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

JACKSON JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived administrative support, teachers, and program structure as strengths of the science program.

2. The principal and teachers perceived facilities, equipment, and supplies, a stronger base in chemistry, and more grade level planning as areas of the science program in need of strengthening.

3. Half (50%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group of junior high school teachers.

4. The average teaching experience was 17 years compared to 12 years for the combined group.

5. No teachers were teaching out-of-field.

6. The average class size was 29 compared to 27 for the combined group.

7. Two sections of biology were taught in grade 9.

8. Teachers interviewed did not think that common district-level exams should be administered.

9. Teachers indicated that 12% of class time was devoted to laboratory work. This compared to 19% for the combined group.

10. The minority population at Jackson Junior High School was 18% compared to 28% for the combined junior high schools.

11. The 1984 CTBS-U seventh grade science subtest median for Jackson Junior High School was 64 compared to the district median of 57.

12. The 1984 CTBS-U ninth grade science subtest median for Jackson Junior High School was 60 compared to the district median of 60.

5/TD/1
JR/HS/NP.6

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
LAKEVIEW JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 7 Life 3 Physical Science 4 Earth Science 2
General Science 0 Biology 0 Teaching two different science subjects 2

Rank 3 6, 88 % Rank 2 1, 12 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 8 First Year Teachers 3
Took at least 1 college science course in prior 5 years 4, 57 %
Took a science methods course at some time 5, 71 %
Teaching One or More Classes Out-Of-Field (OOF) 0, 0 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1007 % Minority 16

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	882	88	36	25	0	0	0	0
Life	354	35	15	24	0	0	0	0
Physical Sci	330	33	13	25	0	0	0	0
Earth Science	198	20	8	25	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 71 9th Grade Median 67

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Quality teaching
2 Background of students
3 Academic orientation
4 Hands-on activities
5 Chairperson

Needs (most frequently mentioned)

1 Facilities and equipment
2 Open program for labs
3 More planning time
4 Textbooks (8th grade, advanced)
5 More access to equipment

Highest Rated Questionnaire Items (teachers)

1 Objectives awareness
2 Chairperson
3 Textbook selection
4 Lesson plans and instruction
5 Career opportunities
6 Career opportunites
7 Library acquisitions

Lowest Rated Questionnaire Items (teachers)

1 Teacher selection
2 Coordination with feeder schools
3 Computer use
4 Availability of computers
5 Involvement in clubs
6 Coordination between schools

5/TD
LAKEVIEW
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LAKEVIEW JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.00	33.0
07	Laboratories	2.00	47.5
08	Equipment	2.33	42.5
09	Supplies	2.33	42.5
10	Safety Knowledge	4.00	14.5
11	Textbooks	3.33	27.5
12	Manuals	4.00	14.5
13	Resources	2.67	37.5
14	Media	2.33	42.5
15	Avail Computers	1.00	54.5
16	Computer Use	1.00	54.5
17	Community in Class	3.00	33.0
18	Extend Prog to Comm	3.33	27.5
19	Parents aware	2.67	37.5
23	Career Opportunities	4.67	5.5
24	Prep for Future in Sci	3.33	27.5
25	Selecting Sci Courses	4.00	14.5
26	Objectives Awareness	5.00	2.5
27	Coor Between Schools	1.33	51.5
28	Coor with Math	2.67	37.5
29	Coor with Feeders	1.00	54.5
30	Lesson Plans and Inst	5.00	2.5
35	Homework	3.67	20.0
36	Manage Labs	2.00	47.5
37	Class Discipline	4.33	9.0
38	Lab Discipline	3.33	27.5
39	Involve in Clubs	1.33	51.5
40	Class Size	3.33	27.5
41	Lab Class Size	2.00	47.5
42	Library Research	4.00	14.5
43	Lab Skills	2.67	37.5
44	Textbook Skills	3.67	20.0
45	Student Enthusiasm	3.67	20.0
46	On Task in Class	3.33	27.5
47	On Task in Lab	2.33	42.5
48	Teacher Tests and Plans	4.33	9.0
49	Teach Tests and Advice	4.00	14.5
50	Required Reading	2.67	37.5
51	District Tests	3.00	33.0
52	Essay Questions	3.67	20.0
53	Graphs on Tests	4.00	14.5
54	Process Skills on Tests	3.67	20.0
55	Reporting Progress	4.33	9.0
60	Inservice	2.00	47.5
61	Chairperson	5.00	2.5
62	Science Coordinator	3.50	23.0
63	Teacher Preparation	4.33	9.0
64	Admin Support	3.33	27.5
65	Teacher Satisfaction	3.33	27.5
66	Teacher Selection	1.00	54.5
67	Textbook Selection	5.00	2.5
68	Library Acquisitions	4.67	5.5
69	Involve With Guidance	2.00	47.5
70	Planning Time	2.00	47.5
71	Developing Budget	2.67	37.5
72	Using Funds	4.33	9.0

5/TD
LAKEVIEW/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LAKEVIEW JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
26	Objectives Awareness	5.00	2.5
61	Chairperson	5.00	2.5
67	Textbook Selection	5.00	2.5
30	Lesson Plans and Inst	5.00	2.5
23	Career Opportunities	4.67	5.5
68	Library Acquisitions	4.67	5.5
37	Class Discipline	4.33	9.0
55	Reporting Progress	4.33	9.0
63	Teacher Preparation	4.33	9.0
72	Using Funds	4.33	9.0
48	Teacher Tests and Plans	4.33	9.0
25	Selecting Sci Courses	4.00	14.5
49	Teach Tests and Advice	4.00	14.5
10	Safety Knowledge	4.00	14.5
12	Manuals	4.00	14.5
42	Library Research	4.00	14.5
53	Graphs on Tests	4.00	14.5
35	Homework	3.67	20.0
44	Textbook Skills	3.67	20.0
45	Student Enthusiasm	3.67	20.0
52	Essay Questions	3.67	20.0
54	Process Skills on Tests	3.67	20.0
62	Science Coordinator	3.50	23.0
24	Prep for Future in Sci	3.33	27.5
11	Textbooks	3.33	27.5
18	Extend Prog to Comm	3.33	27.5
38	Lab Discipline	3.33	27.5
40	Class Size	3.33	27.5
46	On Task in Class	3.33	27.5
64	Admin Support	3.33	27.5
65	Teacher Satisfaction	3.33	27.5
06	Classrooms	3.00	33.0
17	Community in Class	3.00	33.0
51	District Tests	3.00	33.0
13	Resources	2.67	37.5
19	Parents aware	2.67	37.5
28	Coor with Math	2.67	37.5
43	Lab Skills	2.67	37.5
50	Required Reading	2.67	37.5
71	Developing Budget	2.67	37.5
08	Equipment	2.33	42.5
09	Supplies	2.33	42.5
14	Media	2.33	42.5
47	On Task in Lab	2.33	42.5
07	Laboratories	2.00	47.5
36	Manage Labs	2.00	47.5
41	Lab Class Size	2.00	47.5
60	Inservice	2.00	47.5
70	Planning Time	2.00	47.5
69	Involve With Guidance	2.00	47.5
27	Coor Between Schools	1.33	51.5
39	Involve in Clubs	1.33	51.5
15	Avail Computers	1.00	54.5
16	Computer Use	1.00	54.5
29	Coor with Feeders	1.00	54.5
66	Teacher Selection	1.00	54.5

5/TD
LAKEVIEW/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LAKEVIEW JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	33	67	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	0	100	0
59	Should common district-level exams be administered?	33	67	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	15
83	Discussion, all students have some opportunity to talk.	17
84	Recitation, students respond to teacher questions or assignments.	17
85	Demonstrations, teachers or students use concrete materials to illustrate points.	11
86	Laboratory, students work individually or in pairs.	10
87	Films, filmstrips, TV.	6
88	Field trips.	1
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	12
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	2
93	Reports from students.	2
94	Other, please specify.	0

March 27, 1984

MEMORANDUM

TO: OTTO F. DICKMAN, III
Principal, Lakeview Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
64	71	64	67

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	66	69	71	73	58	59	78	79	71	74	69	70
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	64	68	60	63	59	61	51	53	59	63	54	58

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

LAKEVIEW JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, students, academic orientation, hands-on activities, and the chairperson as strengths of the science program.

2. The principal and teachers perceived facilities and equipment, labs, more planning time, textbooks for grade 8, and more access to equipment as areas of the science program that need strengthening.

3. One of seven (12%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group of junior high school teachers.

4. The average teaching experience was eight years compared to 12 years for the combined group.

5. No science courses were being taught by out-of-field teachers.

6. The minority population was 16% compared to 28% for the combined group of junior high schools.

7. Average class size was 25 compared to 27 for the combined group of junior junior high schools.

8. Teachers indicated that 10% of class time was devoted to laboratory experiences. This compared to 19% for the combined group of junior high school teachers.

9. The 1984 CTBS-U seventh grade science subtest median for Lakeview Junior High School was 71 compared to the district median of 57.

10. The 1984 CTBS-U ninth grade science subtest median for Lakeview Junior High School was 67 compared to the district median of 60.

5/TD/1
JR/HS/NP.7

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
LEE JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 8 Life 4 Physical Science 3 Earth Science 3
General Science 0 Biology 1 Teaching two different science subjects 3

Rank 3 6 , 75 % Rank 2 2 , 25 % Rank 1 or 1A 0 , 0 %

Average Years Teaching Experience 14 First Year Teachers 0
Took at least 1 college science course in prior 5 years 6 , 75 %
Took a science methods course at some time 6 , 75 %
Teaching One or More Classes Out-Of-Field (OOF) 1 , 13 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 958 % Minority 44

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	892	93	36	25	3	8	62	7
Life	307	32	12	26	3	25	62	20
Physical Sci	284	30	13	22	0	0	0	0
Earth Science	216	23	8	27	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	85	9	3	28	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 48 9th Grade Median 48

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Experienced, hardworking teachers
2 Hands-on activities
3 Caring and involved parents
4 Homework
5 Facilities

Needs (most frequently mentioned)

1 Equipment and supplies
2 Help for some teachers
3 More planning time
4 More field trips
5 Utilize community resources

Highest Rated Questionnaire Items (teachers)

1 Teacher preparation
2 Lesson plans and instruction
3 Textbooks and instruction
4 Teacher tests and plans
5 Student skill in reading textbook

Lowest Rated Questionnaire Items (teachers)

1 Developing budge
2 Coordination with feeder schools
3 Computer use
4 Availability of computers
5 Teacher selection
6 Equipment

5/TD
LEE
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LEE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.67	22.0
07	Laboratories	2.67	38.5
08	Equipment	1.33	51.5
09	Supplies	1.67	49.0
10	Safety Knowledge	4.00	13.5
11	Textbooks	4.67	4.0
12	Manuals	4.00	13.5
13	Resources	3.67	22.0
14	Media	3.33	30.0
15	Avail Computers	1.00	54.5
16	Computer Use	1.00	54.5
17	Community in Class	2.67	38.5
18	Extend Prog to Comm	2.67	38.5
19	Parents Aware	3.67	22.0
23	Career Opportunities	4.00	13.5
24	Prep for Future in Sci	4.00	13.5
25	Selecting Sci Courses	3.67	22.0
26	Objectives Awareness	4.33	7.5
27	Coor Between Schools	2.00	46.0
28	Coor with Math	1.67	49.0
29	Coor with Feeders	1.00	54.5
30	Lesson Plans and Inst	5.00	1.5
35	Homework	4.00	13.5
36	Manage Labs	4.00	13.5
37	Class Discipline	4.33	7.5
38	Lab Discipline	4.33	7.5
39	Involve in Clubs	1.67	49.0
40	Class Size	2.67	38.5
41	Lab Class Size	2.33	43.0
42	Library Research	2.33	43.0
43	Lab Skills	2.67	38.5
44	Textbook Skills	4.67	4.0
45	Student Enthusiasm	4.00	13.5
46	On Task in Class	3.67	22.0
47	On Task in Lab	3.33	30.0
48	Teacher Tests and Plans	4.67	4.0
49	Teach Tests and Advice	3.67	22.0
50	Required Reading	3.67	22.0
51	District Tests	2.00	46.0
52	Essay Questions	3.67	22.0
53	Graphs on Tests	3.00	34.5
54	Process Skills on Tests	4.33	7.5
55	Reporting Progress	4.00	13.5
60	Inservice	3.33	30.0
61	Chairperson	3.00	34.5
62	Science Coordinator	3.33	30.0
63	Teacher Preparation	5.00	1.5
64	Admin Support	3.33	30.0
65	Teacher Satisfaction	3.33	30.0
66	Teacher Selection	1.33	51.5
67	Textbook Selection	3.67	22.0
68	Library Acquisitions	2.67	38.5
69	Involve With Guidance	2.33	43.0
70	Planning Time	2.00	46.0
71	Developing Budget	1.00	54.5
72	Using Funds	3.33	30.0

S/TD
LEE/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LEE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
63	Teacher Preparation	5.00	1.5
30	Lesson Plans and Inst	5.00	1.5
11	Textbooks	4.67	4.0
48	Teacher Tests and Plans	4.67	4.0
44	Textbook Skills	4.67	4.0
26	Objectives Awareness	4.33	7.5
37	Class Discipline	4.33	7.5
38	Lab Discipline	4.33	7.5
54	Process Skills on Tests	4.33	7.5
10	Safety Knowledge	4.00	13.5
12	Manuals	4.00	13.5
23	Career Opportunities	4.00	13.5
35	Homework	4.00	13.5
36	Manage Labs	4.00	13.5
24	Prep for Future in Sci	4.00	13.5
45	Student Enthusiasm	4.00	13.5
55	Reporting Progress	4.00	13.5
06	Classrooms	3.67	22.0
13	Resources	3.67	22.0
19	Parents aware	3.67	22.0
46	On Task in Class	3.67	22.0
50	Required Reading	3.67	22.0
52	Essay Questions	3.67	22.0
67	Textbook Selection	3.67	22.0
25	Selecting Sci Courses	3.67	22.0
49	Teach Tests and Advice	3.67	22.0
14	Media	3.33	30.0
47	On Task in Lab	3.33	30.0
60	Inservice	3.33	30.0
62	Science Coordinator	3.33	30.0
64	Admin Support	3.33	30.0
65	Teacher Satisfaction	3.33	30.0
72	Using Funds	3.33	30.0
53	Graphs on Tests	3.00	34.5
61	Chairperson	3.00	34.5
07	Laboratories	2.67	38.5
17	Community in Class	2.67	38.5
18	Extend Prog to Comm	2.67	38.5
40	Class Size	2.67	38.5
43	Lab Skills	2.67	38.5
68	Library Acquisitions	2.67	38.5
41	Lab Class Size	2.33	43.0
42	Library Research	2.33	43.0
69	Involve With Guidance	2.33	43.0
27	Coor Between Schools	2.00	46.0
51	District Tests	2.00	46.0
70	Planning Time	2.00	46.0
09	Supplies	1.67	49.0
28	Coor with Math	1.67	49.0
39	Involve in Clubs	1.67	49.0
08	Equipment	1.33	51.5
66	Teacher Selection	1.33	51.5
15	Avail Computers	1.00	54.5
16	Computer Use	1.00	54.5
29	Coor with Feeders	1.00	54.5
71	Developing Budget	1.00	54.5

S/TD
LEE/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LEE JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
[illegible]	Do you think that a science program for the gifted should be provided at your school?	67	33	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	100	0	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	7
83	Discussion, all students have some opportunity to talk.	13
84	Recitation, students respond to teacher questions or assignments.	13
85	Demonstrations, teachers or students use concrete materials to illustrate points.	8
86	Laboratory, students work individually or in pairs.	13
87	Films, filmstrips, TV.	5
88	Field trips.	1
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	15
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	6
[illegible]	Reports from students.	8
94	Other, please specify.	0

5/TD
JR/SCI/QUE.?
2/1/84

March 27, 1984

MEMORANDUM

TO: EDWARD T. MAKOVEC, JR.
Principal, Lee Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
48	48	48	48

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade												
Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	59	60	61	62	45	46	64	69	61	60	56	57
9th Grade												
Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	57	61	52	55	51	52	42	43	52	55	46	47

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

LEE JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, hands-on activities, involved parents, homework, and facilities as strengths of the science program.

2. The principal and teachers perceived equipment and supplies, inservice for some teachers, more planning time, more field trips, and more utilization of community resources as areas of the science program which need strengthening.

3. The average teaching experience was 14 years compared to 12 years for the combined group of junior high school science teachers.

4. One teacher (13%) was teaching at least one science course out-of-field. This compared to 21% for the combined group.

5. The minority population was 44% compared to 28% for the combined group of junior high schools.

6. The average class size was 25 compared to 27 for the combined group.

7. Three sections of biology were taught in grade nine.

8. All teachers who were interviewed said that common district level exams should be administered.

9. Teachers indicated that 13% of class time was devoted to laboratory experiences. This compared to 19% for the combined group.

10. In the five years prior to the 1983-84 school year, 75% of the science teachers completed at least one college level science content course. This compared to 63% for the combined group.

11. The 1984 CTBS-U seventh grade science subtest median for Lee Junior High School was 48 compared to the district median of 57.

12. The 1984 CTBS-U ninth grade science subtest median for Lee Junior High School was 48 compared to the district median of 60.

5/TD/1
JR/HS/NP.8

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
LIBERTY JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 11 Life 3 Physical Science 6 Earth Science 4
General Science 0 Biology 1 Teaching two different science subjects 3

Rank 3 6, 55 % Rank 2 5, 45 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 10 First Year Teachers 1
Took at least 1 college science course in prior 5 years 4, 36 %
Took a science methods course at some time 9, 82 %
Teaching One or More Classes Out-Of-Field (OOF) 2, 18 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1384 % Minority 14

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1324	96	45	29	8	18	197	15
Life	465	34	15	31	0	0	0	0
Physical Sci	439	32	16	27	3	19	82	19
Earth Science	318	23	11	29	2	18	34	11
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	102	7	3	34	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 64 9th Grade Median 64

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Sharing and helping teachers
2 Lab facilities and equipment
3 Organization of department
4 Activities
5 Study guides

Needs (most frequently mentioned)

1 More labs in some classes, lab manuals, aides
2 Better use of human and material resources
3 Updated films
4 Better texts
5 Gifted program
6 Planning time

Highest Rated Questionnaire Items (teachers)

1 Lab discipline
2 On task in lab
3 Chairperson
4 Teacher preparation
5 Teacher satisfaction
6 Textbook selection

Lowest Rated Questionnaire Items (teachers)

1 Selecting science course by students
2 Computer use
3 Coordination with feeder schools
4 Coordination with math
5 Coordination between schools

5/TD
LIBERTY
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LIBERTY JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.67	9.5
07	Laboratories	3.67	28.0
08	Equipment	4.67	9.5
09	Supplies	4.33	15.0
10	Safety Knowledge	4.33	15.0
11	Textbooks	4.00	21.0
12	Manuals	4.00	21.0
13	Resources	3.00	37.0
14	Media	3.67	28.0
15	Avail Computers	1.67	50.5
16	Computer Use	1.00	55.5
17	Community in Class	2.33	45.5
18	Extend Prog to Comm	3.00	37.0
19	Parents aware	2.67	41.5
23	Career Opportunities	4.00	21.0
24	Prep for Future in Sci	3.67	28.0
25	Selecting Sci Courses	1.00	55.5
26	Objectives Awareness	4.00	21.0
27	Coor Between Schools	1.33	53.0
28	Coor with Math	1.33	53.0
29	Coor with Feeders	1.33	53.0
30	Lesson Plans and Test	4.33	15.0
35	Homework	3.33	33.0
36	Manage Labs	4.67	9.5
37	Class Discipline	4.67	9.5
38	Lab Discipline	5.00	3.5
39	Involve in Clubs	1.67	50.5
40	Class Size	2.33	45.5
41	Lab Class Size	2.00	48.5
42	Library Research	3.67	28.0
43	Lab Skills	2.33	45.5
44	Textbook Skills	4.00	21.0
45	Student Enthusiasm	3.67	28.0
46	On Task in Class	4.67	9.5
47	On Task in Lab	5.00	3.5
48	Teacher Tests and Plans	2.67	41.5
49	Teach Tests and Advice	3.00	37.0
50	Required Reading	2.00	48.5
51	District Tests	2.67	41.5
52	Essay Questions	4.00	21.0
53	Graphs on Tests	4.00	21.0
54	Process Skills on Tests	3.33	33.0
55	Reporting Progress	3.67	28.0
60	Inservice	3.33	33.0
61	Chairperson	5.00	3.5
62	Science Coordinator	3.67	28.0
63	Teacher Preparation	5.00	3.5
64	Admin Support	4.33	15.0
65	Teacher Satisfaction	5.00	3.5
66	Teacher Selection	2.67	41.5
67	Textbook Selection	5.00	3.5
68	Library Acquisitions	4.33	15.0
69	Involve With Guidance	3.00	37.0
70	Planning Time	3.00	37.0
71	Developing Budget	2.33	45.5
72	Using Funds	4.67	9.5

5/TD
LIBERTY/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LIBERTY JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
38	Lab Discipline	5.00	3.5
47	On Task in Lab	5.00	3.5
61	Chairperson	5.00	3.5
63	Teacher Preparation	5.00	3.5
65	Teacher Satisfaction	5.00	3.5
67	Textbook Selection	5.00	3.5
06	Classrooms	4.67	9.5
08	Equipment	4.67	9.5
36	Manage Labs	4.67	9.5
37	Class Discipline	4.67	9.5
46	On Task in Class	4.67	9.5
72	Using Funds	4.67	9.5
09	Supplies	4.33	15.0
10	Safety Knowledge	4.33	15.0
64	Admin Support	4.33	15.0
68	Library Acquisitions	4.33	15.0
30	Lesson Plans and Inst	4.33	15.0
11	Textbooks	4.00	21.0
12	Manuals	4.00	21.0
23	Career Opportunities	4.00	21.0
26	Objectives Awareness	4.00	21.0
44	Textbook Skills	4.00	21.0
52	Essay Questions	4.00	21.0
53	Graphs on Tests	4.00	21.0
07	Laboratories	3.67	28.0
14	Media	3.67	28.0
42	Library Research	3.67	28.0
45	Student Enthusiasm	3.67	28.0
55	Reporting Progress	3.67	28.0
62	Science Coordinator	3.67	28.0
24	Prep for Future in Sci	3.67	28.0
35	Homework	3.33	33.0
60	Inservice	3.33	33.0
54	Process Skills on Tests	3.33	33.0
13	Resources	3.00	37.0
18	Extend Prog to Comm	3.00	37.0
69	Involve With Guidance	3.00	37.0
49	Teach Tests and Advice	3.00	37.0
70	Planning Time	3.00	37.0
48	Teacher Tests and Plans	2.67	41.5
19	Parents aware	2.67	41.5
51	District Tests	2.67	41.5
66	Teacher Selection	2.67	41.5
17	Community in Class	2.33	45.5
40	Class Size	2.33	45.5
43	Lab Skills	2.33	45.5
71	Developing Budget	2.33	45.5
41	Lab Class Size	2.00	48.5
50	Required Reading	2.00	48.5
15	Avail Computers	1.67	50.5
39	Involve in Clubs	1.67	50.5
27	Coor Between Schools	1.33	53.0
28	Coor with Math	1.33	53.0
29	Coor with Feeders	1.33	53.0
16	Computer Use	1.00	55.5
25	Selecting Sci Courses	1.00	55.5

5/TD
LIBERTY/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LIBERTY JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	33	67	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	33	67	0
58	Should common school-level exams for each subject be administered?	67	33	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	11
83	Discussion, all student have some opportunity to talk.	14
84	Recitation, students respond to teacher questions or assignments.	11
85	Demonstrations, teachers or students use concrete materials to illustrate points.	7
86	Laboratory, students work individually or in pairs.	21
87	Films, filmstrips, TV.	7
88	Field trips.	1
89	Tests.	10
90	Deskwork, workbooks, and reading assignments.	14
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	3
93	Reports from students.	1
94	Other, please specify.	0

5/TD
JR/SCI/QUE.18
2/1/84

March 27, 1984

MEMORANDUM

TO: REX HA[illegible]
Principal, Liberty Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY F[illegible] BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
60	64	56	64

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	64	64	69	69	53	55	72	76	69	69	67	67
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	63	67	55	60	55	57	50	52	57	61	51	54

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/1s/554
cc: Dallas Maddron
Science Department Chairperson

LIBERTY JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, lab facilities and equipment, department organization, activities, and study guides as strengths of the science program.

2. The principal and teachers perceived labs, utilization of resources, films, textbooks, the gifted program, and planning time as areas of the science program in need of strengthening.

3. Forty-five percent (45%) of the science teachers held a Rank 2 certificate or higher. This compares to 31% for the combined group of junior high school science teachers.

4. Average teaching experience was 10 years compared to 12 years for the combined group.

5. Thirty-six percent (36%) of the science teachers completed at least one college level science content course in the five years prior to the 1983-84 school year. This compared to 63% for the combined group.

6. The minority population was 14% compared to 28% for the combined group of junior high schools.

7. Average class size was 29 compared to 27 for the combined group.

8. Three sections of biology were taught in grade 9.

9. Teachers indicated that 13% of class time was devoted to labs compared to 19% for the combined group.

10. Two teachers (18%) were teaching one or more science classes out-of-field.

11. The 1984 CTBS-U seventh grade science subtest median for Liberty Junior High School was 64 compared to the district median of 5..

12. The 1984 CTBS-U ninth grade science subtest median for Liberty Junior High School was 64 compared to the district median of 60.

5/TD/1
JR/HS/NP.9

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
LOCKHART JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 7 Life 2 Physical Science 4 Earth Science 2
General Science 0 Biology 0 Teaching two different science subjects 1

Rank 3 3 , 43 % Rank 2 3 , 43 % Rank 1 or 1A 1 , 14 %

Average Years Teaching Experience 12 First Year Teachers 2
Took at least 1 college science course in prior 5 years 4 , 57 %
Took a science methods course at some time 6 , 86 %
Teaching One or More Classes Out-Of-Field (OOF) 1 , 14 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 963 % Minority 16

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	886	92	32	28	5	16	130	15
Life	290	30	10	29	0	0	0	0
Physical Sci	348	36	13	27	5	38	130	37
Earth Science	248	26	9	28	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 60 9th Grade Median 64

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Teachers
2 Sound instructional program
3 Effective labs

Needs (most frequently mentioned)

1 Lab space and equipment
2 More time to plan
3 Improve offerings for advanced students
4 Funds for Science World Magazine
5 Coordination within department

Highest Rated Questionnaire Items (teachers)

1 Objectives awareness
2 Managing labs
3 Lab discipline
4 On task in lab
5 Preparing for future in science

Lowest Rated Questionnaire Items (teachers)

1 Involvement in clubs
2 Computer use
3 Availability of computers
4 Resources
5 Equipment

5/TD
LOCKHART
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LOCKHART JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	2.67	37.5
07	Laboratories	3.67	47.0
08	Equipment	1.00	54.0
09	Supplies	1.67	47.0
10	Safety Knowledge	3.00	30.5
11	Textbooks	3.00	30.5
12	Manuals	1.33	50.0
13	Resources	1.00	54.0
14	Media	3.00	30.5
15	Avail Computers	1.00	54.0
16	Computer Use	1.00	54.0
17	Community in Class	1.33	50.0
18	Extend Prog to Comm	2.00	44.0
19	Parents aware	2.67	37.5
23	Career Opportunities	3.33	25.0
24	Prep for Future in Sci	5.00	3.0
25	Selecting Sci Courses	4.33	12.5
26	Objectives Awareness	5.00	3.0
27	Coor Between Schools	2.00	44.0
28	Coor with Math	3.50	24.0
29	Coor with Feeders	1.33	50.0
30	Lesson Plans and Inst	4.67	7.5
35	Homework	4.67	7.5
36	Manage Labs	5.00	3.0
37	Class Discipline	4.33	12.5
38	Lab Discipline	5.00	3.0
39	Involve in Clubs	1.00	54.0
40	Class Size	3.00	30.5
41	Lab Class Size	3.00	30.5
42	Library Research	4.00	18.5
43	Lab Skills	4.33	12.5
44	Textbook Skills	4.67	7.5
45	Student Enthusiasm	4.33	12.5
46	On Task in Class	3.67	22.5
47	On Task in Lab	5.00	3.0
48	Teacher Tests and Plans	4.00	18.5
49	Teach Tests and Advice	4.00	18.5
50	Required Reading	3.00	30.5
51	District Tests	3.00	30.5
52	Essay Questions	3.00	30.5
53	Graphs on Tests	3.67	22.5
54	Process Skills on Tests	4.00	18.5
55	Reporting Progress	4.33	12.5
60	Inservice	2.33	41.0
61	Chairperson	2.67	37.5
62	Science Coordinator	3.00	30.5
63	Teacher Preparation	4.00	18.5
64	Admin Support	2.00	44.0
65	Teacher Satisfaction	4.67	7.5
66	Teacher Selection	2.33	41.0
67	Textbook Selection	4.00	18.5
68	Library Acquisitions	4.33	12.5
69	Involve With Guidance	2.33	41.0
70	Planning Time	1.67	47.0
71	Developing Budget	2.67	37.5
72	Using Funds	3.00	30.5

5/TD
LOCKHART/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LOCKHART JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
26	Objectives Awareness	5.00	3.0
36	Manage Labs	5.00	3.0
38	Lab Discipline	5.00	3.0
47	On Task in Lab	5.00	3.0
24	Prep for Future in Sci	5.00	3.0
35	Homework	4.67	7.5
44	Textbook Skills	4.67	7.5
65	Teacher Satisfaction	4.67	7.5
30	Lesson Plans and Inst	4.67	7.5
37	Class Discipline	4.33	12.5
43	Lab Skills	4.33	12.5
45	Student Enthusiasm	4.33	12.5
55	Reporting Progress	4.33	12.5
61	Library Acquisitions	4.33	12.5
25	Selecting Sci Courses	4.33	12.5
42	Library Research	4.00	18.5
63	Teacher Preparation	4.00	18.5
67	Textbook Selection	4.00	18.5
49	Teach Tests and Advice	4.00	18.5
48	Teacher Tests and Plans	4.00	18.5
54	Process Skills on Tests	4.00	18.5
46	On Task in Class	3.67	22.5
53	Graphs on Tests	3.67	22.5
28	Coor with Math	3.50	24.0
23	Career Opportunities	3.33	25.0
10	Safety Knowledge	3.00	30.5
11	Textbooks	3.00	30.5
14	Media	3.00	30.5
40	Class Size	3.00	30.5
41	Lab Class Size	3.00	30.5
50	Required Reading	3.00	30.5
51	District Tests	3.00	30.5
52	Essay Questions	3.00	30.5
62	Science Coordinator	3.00	30.5
72	Using Funds	3.00	30.5
06	Classrooms	2.67	37.5
19	Parents aware	2.67	37.5
61	Chairperson	2.67	37.5
71	Developing Budget	2.67	37.5
60	Inservice	2.33	41.0
66	Teacher Selection	2.33	41.0
69	Involve With Guidance	2.33	41.0
18	Extend Prog to Comm	2.00	44.0
27	Coor Between Schools	2.00	44.0
64	Admin Support	2.00	44.0
07	Laboratories	1.67	47.0
09	Supplies	1.67	47.0
70	Planning Time	1.67	47.0
12	Manuals	1.33	50.0
17	Community in Class	1.33	50.0
29	Coor with Feeders	1.33	50.0
08	Equipment	1.00	54.0
13	Resources	1.00	54.0
15	Avail Computers	1.00	54.0
16	Computer Use	1.00	54.0
39	Involve in Clubs	1.00	54.0

5/TD
LOCKHART/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LOCKHART JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	0	100	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	33	67	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	0	100	0
59	Should common district-level exams be administered?	0	100	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	9
83	Discussion, all students have some opportunity to talk.	5
84	Recitation, students respond to teacher questions or assignments.	5
85	Demonstrations, teachers or students use concrete materials to illustrate points.	5
86	Laboratory, students work individually or in pairs.	23
87	Films, filmstrips, TV.	8
88	Field trips.	0
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	21
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	9
93	Reports from students.	4
94	Other, please specify.	0

March 27, 1984

MEMORANDUM

TO: GLENNIS W. TERRY
Principal, Lockhart Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
57	60	64	64

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	63	63	68	69	53	54	72	75	70	70	64	65
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	68	65	58	57	58	60	49	50	64	61	55	56

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

LOCKHART JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, the instructional program, and labs as strengths of the science program.

2. The principal and teachers perceived labs, planning time, offerings for advanced students, funds for magazines, and coordination within the department as areas of the science program that need strengthening.

3. Fifty-seven percent (57%) of the science teachers held a Rank 2 certificate or higher. This compared to 31% for the combined group of junior high school teachers.

4. One teacher (14%) was teaching at least one science course out-of-field. This compared to 22% for the combined group.

5. Sixteen percent (16%) of the student population was minority compared to 28% for the combined group of junior high schools.

6. Common district-level exams should not be administered according to teachers who were interviewed.

7. Teachers indicated that 23% of class time was devoted to laboratory experiences where students work individually or in pairs. This compared to 19% for the combined group.

8. The 1984 CTBS-U seventh grade science subtest median for Lockhart Junior High School was 60 compared to the district median of 57.

8. The 1984 CTBS-U ninth grade science subtest median for Lockhart Junior High School was 64 compared to the district median of 60.

5/TD/1
JR/HS/NP.10

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
MAITLAND JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 7 Life 2 Physical Science 2 Earth Science 3
General Science 0 Biology 0 Teaching two different science subjects 0

Rank 3 4, 57 % Rank 2 3, 43 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 12 First Year Teachers 0
Took at least 1 college science course in prior 5 years 4, 57 %
Took a science methods course at some time 7, 100%
Teaching One or More Classes Out-Of-Field (OOF) 2, 29 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 797 % Minority 19

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	737	92	27	27	5	19	142	19
Life	207	26	8	26	0	0	0	0
Physical Sci	252	32	9	28	0	0	0	0
Earth Science	278	35	10	28	5	50	142	51
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 75 9th Grade Median 78

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Lab orientation, hands on
2 Advanced grouping

Needs (most frequently mentioned)

1 Facilities and equipment
2 Smaller classes
3 Inservice on methods and labs
4 Time to develop and coordinate a lab oriented curriculum

Highest Rated Questionnaire Items (teachers)

1 Objectives awareness
2 Teacher selection
3 Lesson plans and instruction
4 Selecting science courses
5 Class discipline

Lowest Rated Questionnaire Items (teachers)

1 Planning time
2 Required reading beyond textbook
3 Lab class size
4 Classrooms

5/TD
MAITLAND
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MAITLAND JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	1.67	50.0
07	Laboratories	2.33	43.5
08	Equipment	2.33	43.5
09	Supplies	2.33	43.5
10	Safety Knowledge	4.00	17.0
11	Textbooks	3.67	23.5
12	Manuals	2.50	40.0
13	Resources	2.67	37.5
14	Media	3.67	23.5
15	Avail Computers	2.00	47.5
16	Computer Use	2.00	47.5
17	Community in Class	3.33	30.0
18	Extend Prog to Comm	2.67	37.5
19	Parents aware	3.33	30.0
22	Career Opportunities	4.33	11.0
24	Prep for Future in Sci	4.33	11.0
25	Selecting Sci Courses	5.00	2.5
26	Objectives Awareness	5.00	2.5
27	Coor Between Schools		
28	Coor with Math	3.50	27.0
29	Coor with Feeders		
30	Lesson Plans and Inst	5.00	2.5
35	Homework	4.00	17.0
36	Manage Labs	4.00	17.0
37	Class Discipline	4.67	5.0
38	Lab Discipline	4.33	11.0
39	Involve in Clubs	3.00	34.5
40	Class Size	2.33	43.5
41	Lab Class Size	1.50	51.5
42	Library Research	3.00	34.5
43	Lab Skills	3.00	34.5
44	Textbook Skills	3.33	30.0
45	Student Enthusiasm	3.67	23.5
46	On Task in Class	3.67	23.5
47	On Task in Lab	3.33	30.0
48	Teacher Tests and Plans	4.50	7.0
49	Teach Tests and Advice	4.00	17.0
50	Required Reading	1.50	51.5
51	District Tests		
52	Essay Questions	3.67	23.5
53	Graphs on Tests	3.67	23.5
54	Process Skills on Tests	4.00	17.0
55	Reporting Progress	4.00	17.0
60	Inservice	2.50	40.0
61	Chairperson	3.00	34.5
62	Science Coordinator	4.00	17.0
63	Teacher Preparation	4.33	11.0
64	Admin Support	4.50	7.0
65	Teacher Satisfaction	4.33	11.0
66	Teacher Selection	5.00	2.5
67	Textbook Selection	4.50	7.0
68	Library Acquisitions	3.33	30.0
69	Involve With Guidance	2.00	47.5
70	Planning Time	1.00	53.0
71	Developing Budget	2.50	40.0
72	Using Funds	2.00	47.5

5/TD
MAITLAND/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MAITLAND JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
26	Objectives Awareness	5.00	2.5
66	Teacher Selection	5.00	2.5
30	Lesson Plans and Inst	5.00	2.5
25	Selecting Sci Courses	5.00	2.5
37	Class Discipline	4.67	5.0
64	Admin Support	4.50	7.0
67	Textbook Selection	4.50	7.0
48	Teacher Tests and Plans	4.50	7.0
23	Career Opportunities	4.33	11.0
38	Lab Discipline	4.33	11.0
63	Teacher Preparation	4.33	11.0
65	Teacher Satisfaction	4.33	11.0
24	Prep for Future in Sci	4.33	11.0
10	Safety Knowledge	4.00	17.0
35	Homework	4.00	17.0
36	Manage Labs	4.00	17.0
55	Reporting Progress	4.00	17.0
62	Science Coordinator	4.00	17.0
54	Process Skills on Tests	4.00	17.0
49	Teach Tests and Advice	4.00	17.0
11	Textbooks	3.67	23.5
14	Media	3.67	23.5
45	Student Enthusiasm	3.67	23.5
46	On Task in Class	3.67	23.5
52	Essay Questions	3.67	23.5
53	Graphs on Tests	3.67	23.5
28	Coor with Math	3.50	27.0
17	Community in Class	3.33	30.0
19	Parents aware	3.33	30.0
44	Textbook Skills	3.33	30.0
47	On Task in Lab	3.33	30.0
68	Library Acquisitions	3.33	30.0
39	Involve in Clubs	3.00	34.5
42	Library Research	3.00	34.5
43	Lab Skills	3.00	34.5
61	Chairperson	3.00	34.5
13	Resources	2.67	37.5
18	Extend Prog to Comm	2.67	37.5
12	Manuals	2.50	40.0
60	Inservice	2.50	40.0
71	Developing Budget	2.50	40.0
07	Laboratories	2.33	43.5
08	Equipment	2.33	43.5
09	Supplies	2.33	43.5
40	Class Size	2.33	43.5
15	Avail Computers	2.00	47.5
16	Computer Use	2.00	47.5
72	Using Funds	2.00	47.5
69	Involve With Guidance	2.00	47.5
06	Classrooms	1.67	50.0
41	Lab Class Size	1.50	51.5
50	Required Reading	1.50	51.5
70	Planning Time	1.00	53.0
27	Coor Between Schools		
29	Coor with Feeders		
51	District Tests		

5/TD
MAITLAND/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MAITLAND JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	0	33
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	67	33	0
32	Do you think that a science program for the gifted should be provided at your school?	33	67	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	67	0	33
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	67	0
59	Should common district-level exams be administered?	0	100	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	8
83	Discussion, all students have some opportunity to talk.	10
84	Recitation, students respond to teacher questions or assignments.	10
85	Demonstrations, teachers or students use concrete materials to illustrate points.	8
86	Laboratory, students work individually or in pairs.	32
87	Films, filmstrips, TV.	5
88	Field trips.	0
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	17
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	2
93	Reports from students.	0
94	Other, please specify.	0

5/TD
JR/SCI/QUE.10
2/1/84

March 27, 1984

MEMORANDUM

TO: DAVID E. SOJOURNER, JR.
Principal, Maitland Junior High School

ATTENTION: JACQUELYN H. STILL *jhs*
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK *WEB*
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
71	75	81	78

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade												
Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	74	75	75	78	61	62	79	81	77	77	74	76
9th Grade												
Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	73	71	69	67	65	64	61	59	73	68	67	63

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

MAITLAND JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived hands-on activities and advanced grouping as strengths of the science program.

2. The principal and teachers perceived facilities and equipment, smaller classes, inservice on lab methods, and development of a lab oriented curriculum as areas of the science program in need of strengthening.

3. Forty-three percent (43%) of the science teachers held a Rank 2 or higher certificate compared to 31% for the combined group of junior high school teachers.

4. The minority population was 19% compared to 28% for the combined group of junior high schools.

5. Common district level tests should not be administered according to all teachers interviewed.

6. Teachers indicated that 32% of class time was devoted to laboratory experiences. This compared to 19% for the combined group.

7. Two of the seven teachers (29%) were teaching one or more classes out-of-field.

8. The 1984 CTBS-U seventh grade science subtest median for Maitland Junior High School was 75 compared to the district median of 57.

9. The 1984 CTBS-U ninth grade science subtest median for Maitland Junior High School was 78 compared to the district median of 60.

5/TD/1
JR/HS/NP.11

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
MEADOWBROOK JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 10 Life 4 Physical Science 4 Earth Science 4
General Science 0 Biology 0 Teaching two different science subjects 2

Rank 3 6, 60 % Rank 2 4, 40 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 15 First Year Teachers 1
Took at least 1 college science course in prior 5 years 8, 80 %
Took a science methods course at some time 8, 80 %
Teaching One or More Classes Out-Of-Field (OOF) 1, 10 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1372 % Minority 38

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1329	97	47	28	5	11	143	11
Life	497	36	17	29	0	0	0	0
Physical Sci	440	32	16	28	1	6	27	6
Earth Science	391	28	14	28	4	29	116	30
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 51 9th Grade Median 52

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Professional, dedicated teachers
2 Facilities and equipment
3 Laboratory approach to instruction
4 Administrative support
5 Quality of instruction

Needs (most frequently mentioned)

1 Science rooms for floating teachers
2 Reduced class size
3 More genetics in curriculum

Highest Rated Questionnaire Items (teachers)

1 Textbook selection
2 Equipment
3 Lesson plans and instruction
4 Managing labs
5 Teacher preparation

Lowest Rated Questionnaire Items (teachers)

1 Computer use
2 Teacher selection
3 Availability of computers
4 Developing budget
5 Required reading beyond textbook

5/TD
MEADOWBRK
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MEADOWBROOK JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.33	12.5
07	Laboratories	3.67	26.0
08	Equipment	4.67	4.5
09	Supplies	4.33	12.5
10	Safety Knowledge	4.00	20.0
11	Textbooks	3.33	32.5
12	Manuals		
13	Resources	3.33	32.5
14	Media	3.67	26.0
15	Avail Computers	1.33	53.5
16	Computer Use	1.00	55.0
17	Community in Class	2.67	43.0
18	Extend Prog to Comm	3.00	38.0
19	Parents aware	2.67	43.0
23	Career Opportunities	3.67	26.0
24	Prep for Future in Sci	4.33	12.5
25	Selecting Sci Courses	3.00	38.0
26	Objectives Awareness	4.00	20.0
27	Coor Between Schools	2.67	43.0
28	Coor with Math	2.67	43.0
29	Coor with Feeders	2.00	48.5
30	Lesson Plans and Inst	4.67	4.5
35	Homework	3.67	26.0
36	Manage Labs	4.67	4.5
37	Class Discipline	4.67	4.5
38	Lab Discipline	4.67	4.5
39	Involve in Clubs	4.33	12.5
40	Class Size	3.00	38.0
41	Lab Class Size	3.00	38.0
42	Library Research	2.33	47.0
43	Lab Skills	4.00	20.0
44	Textbook Skills	3.33	32.5
45	Student Enthusiasm	3.67	26.0
46	On Task in Class	4.00	20.0
47	On Task in Lab	4.33	12.5
48	Teacher Tests and Plans	3.00	38.0
49	Teach Tests and Advice	3.33	32.5
50	Required Reading	1.67	51.0
51	District Tests	2.00	48.5
52	Essay Questions	1.67	51.0
53	Graphs on Tests	3.67	26.0
54	Process Skills on Tests	4.33	12.5
55	Reporting Progress	3.67	26.0
60	Inservice	3.33	32.5
61	Chairperson	4.00	20.0
62	Science Coordinator	4.33	12.5
63	Teacher Preparation	4.67	4.5
64	Admin Support	4.33	12.5
65	Teacher Satisfaction	4.33	12.5
66	Teacher Selection	1.33	53.5
67	Textbook Selection	5.00	1.0
68	Library Acquisitions	3.33	32.5
69	Involve With Guidance	2.50	46.0
70	Planning Time	2.67	43.0
71	Developing Budget	1.67	51.0
72	Using Funds	4.33	12.5

S/TD
MEADOWBRK/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MEADOWBROOK JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
67	Textbook Selection	5.00	1.0
08	Equipment	4.67	4.5
30	Lesson Plans and Inst	4.67	4.5
36	Manage Labs	4.67	4.5
63	Teacher Preparation	4.67	4.5
37	Class Discipline	4.67	4.5
38	Lab Discipline	4.67	4.5
06	Classrooms	4.33	12.5
09	Supplies	4.33	12.5
24	Prep for Future in Sci	4.33	12.5
54	Process Skills on Tests	4.33	12.5
62	Science Coordinator	4.33	12.5
64	Admin Support	4.33	12.5
65	Teacher Satisfaction	4.33	12.5
72	Using Funds	4.33	12.5
39	Involve in Clubs	4.33	12.5
47	On Task in Lab	4.33	12.5
10	Safety Knowledge	4.00	20.0
26	Objectives Awareness	4.00	20.0
46	On Task in Class	4.00	20.0
61	Chairperson	4.00	20.0
43	Lab Skills	4.00	20.0
07	Laboratories	3.67	26.0
14	Media	3.67	26.0
23	Career Opportunities	3.67	26.0
35	Homework	3.67	26.0
45	Student Enthusiasm	3.67	26.0
53	Graphs on Tests	3.67	26.0
55	Reporting Progress	3.67	26.0
11	Textbooks	3.33	32.5
13	Resources	3.33	32.5
60	Inservice	3.33	32.5
68	Library Acquisitions	3.33	32.5
44	Textbook Skills	3.33	32.5
49	Teach Tests and Advice	3.33	32.5
18	Extend Prog to Comm	3.00	38.0
25	Selecting Sci Courses	3.00	38.0
41	Lab Class Size	3.00	38.0
48	Teacher Tests and Plans	3.00	38.0
40	Class Size	3.00	38.0
17	Community in Class	2.67	43.0
19	Parents aware	2.67	43.0
27	Coor Between Schools	2.67	43.0
28	Coor with Math	2.67	43.0
70	Planning Time	2.67	43.0
69	Involve With Guidance	2.50	46.0
42	Library Research	2.33	47.0
29	Coor with Readers	2.00	48.5
51	District Tests	2.00	48.5
50	Required Reading	1.67	51.0
71	Developing Budget	1.67	51.0
52	Essay Questions	1.67	51.0
15	Avail Computers	1.33	53.5
66	Teacher Selection	1.33	53.5
16	Computer Use	1.00	55.0
12	Manuals		

5/TD
MEADOWBRK/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MEADOWBROOK JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	0	33	67
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	33	33
59	Should common district-level exams be administered?	67	0	33

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	15
83	Discussion, all students have some opportunity to talk.	17
84	Recitation, students respond to teacher questions or assignments.	9
85	Demonstrations, teachers or students use concrete materials to illustrate points.	9
86	Laboratory, students work individually or in pairs.	33
87	Films, filmstrips, TV.	6
88	Field trips.	1
89	Tests.	7
90	Deskwork, workbooks, and reading assignments.	2
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	0
93	Reports from students.	1
94	Other, please specify.	0

5/TD
JR/SCI/QUE.16
2/1/84

March 27, 1984

MEMORANDUM

TO: JACK M. HOLTON
Principal, Meadowbrook Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
51	51	48	52

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade												
Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	59	62	61	63	45	46	65	68	60	62	57	58
9th Grade												
Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	60	62	52	53	47	49	43	43	54	55	46	49

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/1s/554
cc: Dallas Maddron
Science Department Chairperson

MEADOWBROOK JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, facilities and equipment, the laboratory approach to instruction, administrative support, and quality instruction as strengths of the science program.

2. The principal and teachers perceived science rooms, reduced class size, and more genetics in the curriculum as areas of the science program in need of strengthening.

3. The average teaching experience was 15 years compared to 12 years for the combined group of junior high school science teachers.

4. Eighty percent (80%) of the science teachers completed at least one college level science content course in the five years prior to the 1983-84 school year compared to 63% for the combined group.

5. One science teacher (10%) was teaching at least one science course out-of-field. This compared to 22% for the combined group.

6. The minority population was 38% compared to 28% for the combined group.

7. Thirty-three percent (33%) of class time was devoted to laboratory experiences. This compared to 19% for the combined group.

8. The 1984 CTBS-U seventh grade science subtest median for Meadowbrook Junior High School was 51 compared to the district median of 57.

9. The 1984 CTBS-U ninth grade science subtest median for Meadowbrook Junior High School was 52 compared to the district median of 60.

5/TD/1
JR/HS/NP.12

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
MEMORIAL JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 6 Life 2 Physical Science 2 Earth Science 2
General Science 0 Biology 0 Teaching two different science subjects 0

Rank 3 5 , 83 % Rank 2 1 , 17 % Rank 1 or 1A 0 , 0 %

Average Years Teaching Experience 9 First Year Teachers 0
Took at least 1 college science course in prior 5 years 6 , 100%
Took a science methods course at some time 4 , 67 %
Teaching One or More Classes Out-Of-Field (OOF) 2 , 33 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 954 % Minority 46

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	926	97	30	32	10	33	322	35
Life	329	34	10	33	5	50	172	52
Physical Sci	301	32	10	30	0	0	0	0
Earth Science	296	31	10	30	5	50	150	51
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 54 9th Grade Median 60

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Knowledgeable and motivating teachers
2 Concern for individual students
3 Rapport between teachers and students
4 Importance given to science
5 Science club

Needs (most frequently mentioned)

1 Facilities, equipment, and supplies
2 Reduce class size
3 How to study for tests
4 Help children succeed
5 More specific lab reports
6 Science fair

Highest Rated Questionnaire Items (teachers)

1 Objectives awareness
2 Science coordinator
3 Media
4 Career opportunities
5 Using funds
6 Process skills on tests
7 Selecting science courses
8 Advising students by using tests

Lowest Rated Questionnaire Items (teachers)

1 Developing budget
2 Textbook selection
3 Teacher selection
4 Coordination with feeder schools
5 Computer use
6 Availability of computers

5/TD
MEMORIAL
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MEMORIAL JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.67	12.0
07	Laboratories	3.00	30.5
08	Equipment	2.67	37.0
09	Supplies	2.33	43.0
10	Safety Knowledge	3.67	12.0
11	Textbooks	3.33	21.0
12	Manuals		
13	Resources	3.33	21.0
14	Media	4.00	5.5
15	Avail Computers	1.00	52.5
16	Computer Use	1.00	52.5
17	Community in Class	2.33	43.0
18	Extend Prog to Comm	2.33	43.0
19	Parents aware	3.00	30.5
23	Career Opportunities	4.00	5.5
24	Prep for Future in Sci	3.67	12.0
25	Selecting Sci Courses	4.00	5.5
26	Objectives Awareness	4.67	1.0
27	Coor Between Schools	1.50	48.0
28	Coor with Math	2.33	43.0
29	Coor with Feeders	1.00	52.5
30	Lesson Plans and Inst	3.67	12.0
35	Homework	3.33	21.0
36	Manage Labs	3.00	30.5
37	Class Discipline	3.33	21.0
38	Lab Discipline	3.33	21.0
39	Involve in Clubs	3.00	30.5
40	Class Size	1.67	46.5
41	Lab Class Size	1.33	49.0
42	Library Research	3.00	30.5
43	Lab Skills	2.67	37.0
44	Textbook Skills	3.33	21.0
45	Student Enthusiasm	3.00	30.5
46	On Task in Class	3.33	21.0
47	On Task in Lab	3.67	12.0
48	Teacher Tests and Plans	3.33	21.0
49	Teach Tests and Advice	4.00	5.5
50	Required Reading	3.00	30.5
51	District Tests	1.67	46.5
52	Essay Questions	2.67	37.0
53	Graphs on Tests	3.00	30.5
54	Process Skills on Tests	4.00	5.5
55	Reporting Progress	3.67	12.0
60	Inservice	2.50	39.5
61	Chairperson	3.50	16.0
62	Science Coordinator	4.50	2.0
63	Teacher Preparation	3.67	12.0
64	Admin Support	3.00	30.5
65	Teacher Satisfaction	3.33	21.0
66	Teacher Selection	1.00	52.5
67	Textbook Selection	1.00	52.5
68	Library Acquisitions	2.50	39.5
69	Involve With Guidance	2.33	43.0
70	Planning Time	3.00	30.5
71	Developing Budget	1.00	52.5
72	Using Funds	4.00	5.5

5/TD
MEMORIAL/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MEMORIAL JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
26	Objectives Awareness	4.67	1.0
62	Science Coordinator	4.50	2.0
14	Media	4.00	5.5
23	Career Opportunities	4.00	5.5
72	Using Funds	4.00	5.5
54	Process Skills on Tests	4.00	5.5
25	Selecting Sci Courses	4.00	5.5
49	Teach Tests and Advice	4.00	5.5
06	Classrooms	3.67	12.0
10	Safety Knowledge	3.67	12.0
47	On Task in Lab	3.67	12.0
55	Reporting Progress	3.67	12.0
24	Prep for Future in Sci	3.67	12.0
30	Lesson Plans and Inst	3.67	12.0
63	Teacher Preparation	3.67	12.0
61	Chairperson	3.50	16.0
11	Textbooks	3.33	21.0
13	Resources	3.33	21.0
35	Homework	3.33	21.0
37	Class Discipline	3.33	21.0
38	Lab Discipline	3.33	21.0
44	Textbook Skills	3.33	21.0
46	On Task in Class	3.33	21.0
65	Teacher Satisfaction	3.33	21.0
48	Teacher Tests and Plans	3.33	21.0
07	Laboratories	3.00	30.5
19	Parents aware	3.00	30.5
36	Manage Labs	3.00	30.5
39	Involve in Clubs	3.00	30.5
42	Library Research	3.00	30.5
45	Student Enthusiasm	3.00	30.5
50	Required Reading	3.00	30.5
53	Graphs on Tests	3.00	30.5
64	Admin Support	3.00	30.5
70	Planning Time	3.00	30.5
08	Equipment	2.67	37.0
43	Lab Skills	2.67	37.0
52	Essay Questions	2.67	37.0
60	Inservice	2.50	39.5
68	Library Acquisitions	2.50	39.5
09	Supplies	2.33	43.0
17	Community in Class	2.33	43.0
18	Extend Prog to Comm	2.33	43.0
28	Coor with Math	2.33	43.0
69	Involve With Guidance	2.33	43.0
40	Class Size	1.67	46.5
51	District Tests	1.67	46.5
27	Coor Between Schools	1.50	48.0
41	Lab Class Size	1.33	49.0
15	Avail Computers	1.00	52.5
16	Computer Use	1.00	52.5
29	Coor with Feeders	1.00	52.5
66	Teacher Selection	1.00	52.5
67	Textbook Selection	1.00	52.5
71	Developing Budget	1.00	52.5
12	Manuals		

5/TD
MEMORIAL/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
MEMORIAL JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	33	0	67
31	Are there established procedures for monitoring lesson plans?	0	100	0
32	Do you think that a science program for the gifted should be provided at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	33	33
59	Should common district-level exams be administered?	67	0	33

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	8
83	Discussion, all students have some opportunity to talk.	10
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	10
86	Laboratory, students work individually or in pairs.	27
87	Films, filmstrips, TV.	12
88	Field trips.	1
89	Tests.	7
90	Deskwork, workbooks, and reading assignments.	12
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	3
93	Reports from students.	2
94	Other, please specify.	0

March 27, 1984

MEMORANDUM

TO: RALPH O. JOHNSON
Principal, Memorial Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	54	52	60

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	62	63	65	66	49	46	69	74	66	65	60	60
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	61	64	54	57	54	57	44	46	55	59	51	53

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

MEMORIAL JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, concern for individual students, rapport between teachers and students, importance given to science, and the science club to be strengths of the science program.

2. The principal and teachers perceived the facilities, equipment, and supplies, class size, studying for tests, helping students succeed, lab reports, and involvement in the science fair as areas of the science program which need strengthening.

3. Teachers gave their highest ratings to making students aware of objectives they were to achieve, the district science coordinator, media, teaching about career opportunities, involvement in using budgeted science monies, using process skills on tests, selection of science courses by students, and advising students by using tests.

4. Teachers gave their lowest ratings to involvement in developing the budget, textbook selection, teacher selection, coordination with feeder schools, and availability and use of computers.

5. Teachers mentioned at least 15 provisions that were used for meeting needs of students.

6. All of the teachers (100%) completed at least one college level science course in the five years prior to the 1983-84 school year. This compared to 63% for the combined group of junior high school teachers.

7. Two of the six teachers (33%) were teaching at least one science course out-of-field. This compared to 21% for the combined group of junior high science teachers.

8. The minority student population was 46% compared to 28% for the combined group.

9. Average class size was 32 compared to 27 for the combined group.

10. The 1984 CTBS-U seventh grade science subtest median for Memorial Junior High School was 54 compared to the district median of 57.

11. The 1984 CTBS-U ninth grade science subtest median for Memorial Junior High School was 60 compared to the district median of 60.

5/TD/1
JR/HS/NP.13

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
OCOEE JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 5 Life 4 Physical Science 4 Earth Science 1
General Science 0 Biology 1 Teaching two different science subjects 5

Rank 3 4, 80 % Rank 2 1, 20 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 3 First Year Teachers 1
Took at least 1 college science course in prior 5 years 4, 80 %
Took a science methods course at some time 5, 100%
Teaching One or More Classes Out-Of-Field (OOF) 1, 20 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 854 % Minority 13

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	736	86	25	28	5	20	150	21
Life	331	39	10	33	1	10	25	8
Physical Sci	265	31	10	27	4	40	125	47
Earth Science	107	13	4	27	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	33	4	1	33	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 54 9th Grade Median 48

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Teaching staff
2 Science fair
3 Equipment

Needs (most frequently mentioned)

1 Lab facilities
2 Lab instruction
3 Lab safety
4 Lab manual and activities update
5 Coordinate curriculum at grade level

Highest Rated Questionnaire Items (teachers)

1 Objectives awareness
2 Coordination with math
3 Homework
4 Reporting progress
5 Chairperson

Lowest Rated Questionnaire Items (teachers)

1 Teacher selection
2 Computer use
3 Availability of computers
4 Manuals
5 Involvement with guidance
6 Essay questions
7 District tests

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OCOEE
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
OCOEE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.67	32.0
07	Laboratories	2.33	47.0
08	Equipment	4.00	25.5
09	Supplies	3.67	32.0
10	Safety Knowledge	4.67	14.0
11	Textbooks	3.67	32.0
12	Manuals	1.00	54.5
13	Resources	4.33	20.0
14	Media	4.67	14.0
15	Avail Computers	1.00	54.5
16	Computer Use	1.00	54.5
17	Community in Class	2.33	47.0
18	Extend Prog to Comm	2.67	41.0
19	Parents aware	3.00	38.0
23	Career Opportunities	3.67	32.0
24	Prep for Future in Sci	4.67	14.0
25	Selecting Sci Courses	4.33	20.0
26	Objectives Awareness	5.00	5.5
27	Coor Between Schools	4.33	20.0
28	Coor with Math	5.00	5.5
29	Coor with Feeders	2.50	43.5
30	Lesson Plans and Inst	5.00	5.5
35	Homework	5.00	5.5
36	Manage Labs	3.67	32.0
37	Class Discipline	3.67	32.0
38	Lab Discipline	4.33	20.0
39	Involve in Clubs	3.00	38.0
40	Class Size	2.67	41.0
41	Lab Class Size	2.67	41.0
42	Library Research	3.33	36.0
43	Lab Skills	2.33	47.0
44	Textbook Skills	3.00	38.0
45	Student Enthusiasm	4.00	25.5
46	On Task in Class	4.00	25.5
47	On Task in Lab	4.00	25.5
48	Teacher Tests and Plans	4.33	20.0
49	Teach Tests and Advice	5.00	5.5
50	Required Reading	2.33	47.0
51	District Tests	2.00	51.0
52	Essay Questions	2.00	51.0
53	Graphs on Tests	3.67	32.0
54	Process Skills on Tests	4.00	25.5
55	Reporting Progress	5.00	5.5
60	Inservice	4.67	14.0
61	Chairperson	5.00	5.5
62	Science Coordinator	4.00	25.5
63	Teacher Preparation	4.67	14.0
64	Admin Support	5.00	5.5
65	Teacher Satisfaction	4.67	14.0
66	Teacher Selection	1.00	54.5
67	Textbook Selection	5.00	5.5
68	Library Acquisitions	4.67	14.0
69	Involve With Guidance	2.00	51.0
70	Planning Time	2.33	47.0
71	Developing Budget	2.50	43.5
72	Using Funds	5.00	5.5

5/TD
OCOEE/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
OCOEE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
26	Objectives Awareness	5.00	5.5
28	Coor with Math	5.00	5.5
35	Homework	5.00	5.5
55	Reporting Progress	5.00	5.5
61	Chairperson	5.00	5.5
64	Admin Support	5.00	5.5
67	Textbook Selection	5.00	5.5
72	Using Funds	5.00	5.5
30	Lesson Plans and Inst	5.00	5.5
49	Teach Tests and Advice	5.00	5.5
10	Safety Knowledge	4.67	14.0
14	Media	4.67	14.0
60	Inservice	4.67	14.0
63	Teacher Preparation	4.67	14.0
65	Teacher Satisfaction	4.67	14.0
68	Library Acquisitions	4.67	14.0
24	Prep for Future in Sci	4.67	14.0
25	Selecting Sci Courses	4.33	20.0
48	Teacher Tests and Plans	4.33	20.0
13	Resources	4.33	20.0
27	Coor Between Schools	4.33	20.0
38	Lab Discipline	4.33	20.0
08	Equipment	4.00	25.5
45	Student Enthusiasm	4.00	25.5
46	On Task in Class	4.00	25.5
47	On Task in Lab	4.00	25.5
62	Science Coordinator	4.00	25.5
54	Process Skills on Tests	4.00	25.5
06	Classrooms	3.67	32.0
09	Supplies	3.67	32.0
11	Textbooks	3.67	32.0
23	Career Opportunities	3.67	32.0
36	Manage Labs	3.67	32.0
37	Class Discipline	3.67	32.0
53	Graphs on Tests	3.67	32.0
42	Library Research	3.33	36.0
19	Parents aware	3.00	38.0
39	Involve in Clubs	3.00	38.0
44	Textbook Skills	3.00	38.0
18	Extend Prog to Comm	2.67	41.0
40	Class Size	2.67	41.0
41	Lab Class Size	2.67	41.0
29	Coor with Feeders	2.50	43.5
71	Developing Budget	2.50	43.5
07	Laboratories	2.33	47.0
17	Community in Class	2.33	47.0
43	Lab Skills	2.33	47.0
50	Required Reading	2.33	47.0
70	Planning Time	2.33	47.0
51	District Tests	2.00	51.0
52	Essay Questions	2.00	51.0
69	Involve With Guidance	2.00	51.0
12	Manuals	1.00	54.5
15	Avail Computers	1.00	54.5
16	Computer Use	1.00	54.5
66	Teacher Selection	1.00	54.5

5/TD
OCOEE/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
OCOEE JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available f nds at this school?	33	0	67
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provi ed at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	100	0	0
59	Should common district-level exams be administered?	33	67	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	11
83	Discussion, all students have some opportunity to talk.	11
84	Recitation, students respond to teacher questions or assignments.	22
85	Demonstrations, teachers or students use concrete materials to illustrate points.	9
86	Laboratory, students work individually or in pairs.	15
87	Films, filmstrips, TV.	7
88	Field trips.	1
89	Tests.	10
90	Deskwork, workbooks, and reading assignments.	9
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	4
93	Reports from students.	1
94	Other, please specify.	0

5/TD
JR/SCI/QUE.5
2/1/84

March 27, 1984

MEMORANDUM

TO: ROBERT W. WILLIAMS
Principal, Ocoee Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
51	54	52	48

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	59	61	63	66	45	47	69	75	62	68	60	60
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	62	63	54	52	55	53	43	47	59	64	50	49

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/1s/554
cc: Dallas Maddron
Science Department Chairperson

OCOEE JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, the science fair, and equipment as strengths of the science program.

2. The principal and teachers perceived lab facilities, lab instruction, lab safety, lab manuals, and coordinated the curriculum at the grade level as areas of the science program in need of strengthening.

3. The average teaching experience was three years compared to 12 years for the combined group of junior high school science teachers.

4. The minority population was 13% compared to 28% for the combined group of junior high schools.

5. One section of biology was taught in grade 9.

6. Teachers indicated that they devoted 15% of their time to lab experiences. This compared to 19% for the combined group.

7. In the five years prior to the 1983-84 school year, 80% of the teachers had completed at least one college level science content course. This compared to 63% for the combined group of junior high school science teachers.

8. The 1984 CTBS-U seventh grade science subtest median for Ocoee Junior High School was 54 compared to the district median of 57.

9. The 1984 CTBS-U ninth grade science subtest median for Ocoee Junior High School was 48 compared to the district median of 60.

5/TD/1
JR/HS/NP.14

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
ROBINSWOOD JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 7 Life 3 Physical Science 3 Earth Science 3
General Science 0 Biology 1 Teaching two different science subjects 3

Rank 3 5, 71 % Rank 2 2, 29 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 10 First Year Teachers 0
Took at least 1 college science course in prior 5 years 7, 100%
Took a science methods course at some time 6, 86 %
Teaching One or More Classes Out-Of-Field (OOF) 1, 14 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1066 % Minority 45

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1002	94	39	26	2	5	57	6
Life	337	32	13	26	0	0	0	0
Physical Sci	347	33	12	29	0	0	0	0
Earth Science	229	21	10	23	2	20	57	25
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	92	9	4	23	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 54 9th Grade Median 56

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Teachers
2 Equipment

Needs (most frequently mentioned)

1 Facilities and equipment
2 Class size

Highest Rated Questionnaire Items (teachers)

1 Reporting progress
2 Teacher satisfaction
3 Preparation for future in science
4 Selecting science courses
5 Objectives awareness

Lowest Rated Questionnaire Items (teachers)

1 Teacher selection
2 Manuals
3 Computer use
4 Lab class size
5 Class size
6 Community involvement in class

5/TD
ROBINSWOOD
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
ROBINSWOOD JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.50	26.5
07	Laboratories	3.00	36.5
08	Equipment	4.00	18.0
09	Supplies	4.00	18.0
10	Safety Knowledge	3.50	26.5
11	Textbooks	3.50	26.5
12	Manuals	1.00	55.5
13	Resources	2.50	45.5
14	Media	2.50	45.5
15	Avail Computers	3.00	36.5
16	Computer Use	1.50	54.0
17	Community in Class	2.00	52.0
18	Extend Prog to Comm	2.50	45.5
19	Parents aware	3.50	26.5
23	Career Opportunities	3.50	26.5
24	Prep for Future in Sci	4.50	9.0
25	Selecting Sci Courses	4.50	9.0
26	Objectives Awareness	4.50	9.0
27	Coor Between Schools	2.50	45.5
28	Coor with Math	2.50	45.5
29	Coor with Feeders	2.50	45.5
30	Lesson Plans and Inst	4.00	18.0
35	Homework	2.50	45.5
36	Manage Labs	4.50	9.0
37	Class Discipline	4.50	9.0
38	Lab Discipline	4.50	9.0
39	Involve in Clubs	3.50	26.5
40	Class Size	2.00	52.0
41	Lab Class Size	2.00	52.0
42	Library Research	4.50	9.0
43	Lab Skills	2.50	45.5
44	Textbook Skills	3.00	36.5
45	Student Enthusiasm	3.50	26.5
46	On Task in Class	3.00	36.5
47	On Task in Lab	3.50	26.5
48	Teacher Tests and Plans	4.50	9.0
49	Teach Tests and Advice	4.50	9.0
50	Required Reading	3.50	26.5
51	District Tests	2.50	45.5
52	Essay Questions	3.50	26.5
53	Graphs on Tests	3.50	26.5
54	Process Skills on Tests	4.00	18.0
55	Reporting Progress	5.00	1.5
60	Inservice	3.50	26.5
61	Chairperson	4.50	9.0
62	Science Coordinator	4.00	18.0
63	Teacher Preparation	4.50	9.0
64	Admin Support	3.00	36.5
65	Teacher Satisfaction	5.00	1.5
66	Teacher Selection	1.00	55.5
67	Textbook Selection	4.50	9.0
68	Library Acquisitions	3.00	36.5
69	Involve With Guidance	3.00	36.5
70	Planning Time	2.50	45.5
71	Developing Budget	3.00	36.5
72	Using Funds	4.50	9.0

5/TD
ROBINSWOOD/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
ROBINSWOOD JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
55	Reporting Progress	5.00	1.5
65	Teacher Satisfaction	5.00	1.5
24	Prep for Future in Sci	4.50	9.0
25	Selecting Sci Courses	4.50	9.0
26	Objectives Awareness	4.50	9.0
36	Manage Labs	4.50	9.0
37	Class Discipline	4.50	9.0
38	Lab Discipline	4.50	9.0
42	Library Research	4.50	9.0
48	Teacher Tests and Plans	4.50	9.0
49	Teach Tests and Advice	4.50	9.0
61	Chairperson	4.50	9.0
63	Teacher Preparation	4.50	9.0
67	Textbook Selection	4.50	9.0
72	Using Funds	4.50	9.0
08	Equipment	4.00	18.0
09	Supplies	4.00	18.0
30	Lesson Plans and Inst	4.00	18.0
54	Process Skills on Tests	4.00	18.0
62	Science Coordinator	4.00	18.0
06	Classrooms	3.50	26.5
10	Safety Knowledge	3.50	26.5
11	Textbooks	3.50	26.5
19	Parents aware	3.50	26.5
23	Career Opportunities	3.50	26.5
39	Involve in Clubs	3.50	26.5
45	Student Enthusiasm	3.50	26.5
47	On Task in Lab	3.50	26.5
50	Required Reading	3.50	26.5
52	Essay Questions	3.50	26.5
53	Graphs on Tests	3.50	26.5
60	Inservice	3.50	26.5
07	Laboratories	3.00	36.5
15	Avail Computers	3.00	36.5
44	Textbook Skills	3.00	36.5
46	On Task in Class	3.00	36.5
64	Admin Support	3.00	36.5
68	Library Acquisitions	3.00	36.5
69	Involve With Guidance	3.00	36.5
71	Developing Budget	3.00	36.5
13	Resources	2.50	45.5
14	Media	2.50	45.5
18	Extend Prog to Comm	2.50	45.5
27	Coor Between Schools	2.50	45.5
28	Coor with Math	2.50	45.5
29	Coor with Feeders	2.50	45.5
35	Homework	2.50	45.5
43	Lab Skills	2.50	45.5
51	District Tests	2.50	45.5
70	Planning Time	2.50	45.5
17	Community in Class	2.00	52.0
40	Class Size	2.00	52.0
41	Lab Class Size	2.00	52.0
16	Computer Use	1.50	54.0
12	Manuals	1.00	55.5
66	Teacher Selection	1.00	55.5

5/TD
ROBINSWOOD/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
ROBINSWOOD JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	50	50	0
22	Does science get a fair share of available funds at this school?	50	50	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	50	50	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	50	50	0
59	Should common district-level exams be administered?	0	50	50

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	23
83	Discussion, all students have some opportunity to talk.	7
84	Recitation, students respond to teacher questions or assignments.	5
85	Demonstrations, teachers or students use concrete materials to illustrate points.	10
86	Laboratory, students work individually or in pairs.	10
87	Films, filmstrips, TV.	10
88	Field trips.	1
89	Tests.	10
90	Deskwork, workbooks, and reading assignments.	18
91	Outside speakers, either lecture or demonstration.	3
92	Small group work.	2
93	Reports from students.	3
94	Other, please specify.	0

5/TD
JR/SCI/QUE.12
2/1/84

March 27, 1984

MEMORANDUM

TO: DONALD L. BARNETT
Principal, Robinswood Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
51	54	48	56

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade												
Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	62	63	65	67	44	46	68	70	65	65	58	60
9th Grade												
Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	58	64	51	55	51	54	42	47	54	58	44	49

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/1s/554
cc: Dallas Maddron
Science Department Chairperson

ROBINSWOOD JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers and equipment as strengths of the science program.

2. The principal and teachers perceived facilities and class size as areas of the science program in need of strengthening.

3. The average teaching experience was 10 years compared to 12 years for the combined group of junior high school science teachers.

4. All science teachers (100%) completed at least one college level science content course in the five years prior to the 1983-84 school year. This compared to 63% for the combined group of junior high school science teachers.

5. The minority population was 45% compared to 28% for the combined group of junior high schools.

6. Four sections of biology were taught in grade 9.

7. Teachers indicated that they devoted 10% of class time to lab experiences. This compared to 19% for the combined group.

8. One teacher (14%) was teaching one or more science classes out-of-field.

9. The 1984 CTBS-U seventh grade science subtest median for Robinswood Junior High School was 54 compared to the district median of 57.

10. The 1984 CTBS-U ninth grade science subtest median for Robinswood Junior High School was 56 compared to the district median of 60.

5/TD/1
JR/HS/NP.15

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
UNION PARK JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 9 Life 3 Physical Science 3 Earth Science 3
General Science 0 Biology 0 Teaching two different science subjects 0

Rank 3 7, 78 % Rank 2 2, 22 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 12 First Year Teachers 0
Took at least 1 college science course in prior 5 years 5, 56 %
Took a science methods course at some time 9, 100%
Teaching One or More Classes Out-Of-Field (OOF) 2, 22 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1154 % Minority 7

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1057	92	38	28	8	21	228	22
Life	382	34	13	30	3	23	94	24
Physical Sci	360	31	14	26	5	36	134	37
Earth Science	305	26	11	28	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 57 9th Grade Median 52

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Professional and cohesive faculty
2 Labs and supplies
3 Communications
4 Articulated curriculum
5 Chairperson

Needs (most frequently mentioned)

1 Equipment and supplies
2 Preparation rooms
3 Involvement in science fairs
4 Biology in grade 9
5 Safety workshop

Highest Rated Questionnaire Items (teachers)

1 Manuals
2 Science coordinator
3 Teacher satisfaction
4 Textbook selection
5 Library acquisitions

Lowest Rated Questionnaire Items (teachers)

1 Developing budget
2 Teacher selection
3 Involvement in clubs
4 Coordination with feeder schools
5 Coordination between schools

5/TD
UNION/PK
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
UNION PARK JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.33	33.0
07	Laboratories	2.33	48.0
08	Equipment	2.67	44.5
09	Supplies	3.00	40.0
10	Safety Knowledge	4.67	8.0
11	Textbooks	3.67	25.5
12	Manuals	5.00	3.0
13	Resources	3.33	33.0
14	Media	4.33	14.5
15	Avail Computers	2.00	50.0
16	Computer Use	1.67	51.0
17	Community in Class	3.00	40.0
18	Extend Prog to Comm	2.33	48.0
19	Parents aware	3.00	40.0
23	Career Opportunities	2.67	44.5
24	Prep for Future in Sci	3.33	33.0
25	Selecting Sci Courses	3.50	29.0
26	Objectives Awareness	4.33	14.5
27	Coor Between Schools	1.33	52.0
28	Coor with Math	3.33	33.0
29	Coor with Feeders	1.00	54.5
30	Lesson Plans and Inst	4.33	14.5
35	Homework	4.67	8.0
36	Manage Labs	4.33	14.5
37	Class Discipline	4.33	14.5
38	Lab Discipline	4.67	8.0
39	Involve in Clubs	1.00	54.5
40	Class Size	2.67	44.5
41	Lab Class Size	2.67	44.5
42	Library Research	3.67	25.0
43	Lab Skills	3.67	25.0
44	Textbook Skills	3.33	33.0
45	Student Enthusiasm	3.33	33.0
46	On Task in Class	4.00	19.5
47	On Task in Lab	4.33	14.5
48	Teacher Tests and Plans	3.67	25.0
49	Teach Tests and Advice	4.00	19.5
50	Required Reading	3.33	33.0
51	District Tests	2.33	48.0
52	Essay Questions	3.67	25.0
53	Graphs on Tests	3.67	25.0
54	Process Skills on Tests	3.33	33.0
55	Reporting Progress	4.67	8.0
60	Inservice	3.00	40.0
61	Chairperson	4.00	19.5
62	Science Coordinator	5.00	3.0
63	Teacher Preparation	4.67	8.0
64	Admin Support	4.00	19.5
65	Teacher Satisfaction	5.00	3.0
66	Teacher Selection	1.00	54.5
67	Textbook Selection	5.00	3.0
68	Library Acquisitions	5.00	3.0
69	Involve With Guidance	3.00	40.0
70	Planning Time	3.67	25.0
71	Developing Budget	1.00	54.5
72	Using Funds	4.50	11.0

S/TD
UNION/PK/1
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
UNION PARK JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
12	Manuals	5.00	3.0
62	Science Coordinator	5.00	3.0
65	Teacher Satisfaction	5.00	3.0
67	Textbook Selection	5.00	3.0
68	Library Acquisitions	5.00	3.0
10	Safety Knowledge	4.67	8.0
35	Homework	4.67	8.0
38	Lab Discipline	4.67	8.0
55	Reporting Progress	4.67	8.0
63	Teacher Preparation	4.67	8.0
72	Using Funds	4.50	11.0
14	Media	4.33	14.5
26	Objectives Awareness	4.33	14.5
36	Manage Labs	4.33	14.5
37	Class Discipline	4.33	14.5
47	On Task in Lab	4.33	14.5
30	Lesson Plans and Inst	4.33	14.5
46	On Task in Class	4.00	19.5
61	Chairperson	4.00	19.5
64	Admin Support	4.00	19.5
49	Teach Tests and Advice	4.00	19.5
11	Textbooks	3.67	25.0
42	Library Research	3.67	25.0
43	Lab Skills	3.67	25.0
52	Essay Questions	3.67	25.0
53	Graphs on Tests	3.67	25.0
70	Planning Time	3.67	25.0
48	Teacher Tests and Plans	3.67	25.0
25	Selecting Sci Courses	3.50	29.0
06	Classrooms	3.33	33.0
13	Resources	3.33	33.0
28	Coor with Math	3.33	33.0
44	Textbook Skills	3.33	33.0
45	Student Enthusiasm	3.33	33.0
50	Required Reading	3.33	33.0
54	Process Skills on Tests	3.33	33.0
24	Prep for Future in Sci	3.33	33.0
09	Supplies	3.00	40.0
17	Community in Class	3.00	40.0
19	Parents aware	3.00	40.0
60	Inservice	3.00	40.0
69	Involve With Guidance	3.00	40.0
08	Equipment	2.67	44.5
23	Career Opportunities	2.67	44.5
40	Class Size	2.67	44.5
41	Lab Class Size	2.67	44.5
07	Laboratories	2.33	48.0
18	Extend Prog to Comm	2.33	48.0
51	District Tests	2.33	48.0
15	Avail Computers	2.00	50.0
16	Computer Use	1.67	51.0
27	Coor Between Schools	1.33	52.0
29	Coor with Feeders	1.00	54.5
39	Involve in Clubs	1.00	54.5
66	Teacher Selection	1.00	54.5
71	Developing Budget	1.00	54.5

5/TD
UNION/PK/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
UNION PARK JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	67	33	0
22	Does science get a fair share of available funds at this school?	33	33	33
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	67	33	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	33	67	0
58	Should common school-level exams for each subject be administered?	0	100	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	17
83	Discussion, all students have some opportunity to talk.	11
84	Recitation, students respond to teacher questions or assignments.	3
85	Demonstrations, teachers or students use concrete materials to illustrate points.	6
86	Laboratory, students work individually or in pairs.	22
87	Films, filmstrips, TV.	10
88	Field trips.	1
89	Tests.	6
90	Deskwork, workbooks, and reading assignments.	8
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	12
93	Reports from students.	3
94	Other, please specify.	1

5/TD
JR/SCI/QUE.11
2/1/84

March 27, 1984

MEMORANDUM

TO: ROBERT G. BRUCE
Principal, Union Park Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
51	57	56	52

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined CTBS junior high, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade												
Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	62	64	64	67	50	50	69	72	64	64	62	61
9th Grade												
Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	61	62	54	55	53	52	45	47	58	56	47	49

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/1s/554
cc: Dallas Maddron
Science Department Chairperson

UNION PARK JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived the faculty, laboratories, computations, curriculum, and the science department chairperson to be strengths of the science program.

2. The principal and teachers perceived equipment and supplies, preparation rooms, involvement in science fairs, biology for grade nine, and a safety workshop as aspects of the science program which need strengthening.

3. Teachers gave the highest ratings to lab manuals, the science coordinator, teacher satisfaction with assigned courses, involvement in textbook selection, and involvement in library acquisitions.

4. Teachers gave the lowest ratings to involvement in the development of the budget, involvement in teacher selection, student involvement in clubs, coordination with other junior high schools, and coordination with feeder schools.

5. Twenty-two percent (22%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group of junior high school science teachers.

6. The minority population was 7% compared to 28% for the combined group of junior high schools.

7. Two teachers (22%) were teaching one or more science classes out-of-field.

8. The science fair and use of community resources such as Sea World and the John Young Museum and Planetarium were considered exemplary programs.

9. The 1984 CTBS-U seventh grade science subtest median for Union Park Junior High School was 57 compared to the district median of 57.

10. The 1984 CTBS-U ninth grade science subtest median for Union Park Junior High School was 52 compared to the district median of 60.

5/TD/1
JR/HS/NP.16

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
WALKER JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 9 Life 4 Physical Science 6 Earth Science 3
General Science 0 Biology 1 Teaching two different science subjects 5

Rank 3 7, 78 % Rank 2 2, 22 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 8 First Year Teachers 1
Took at least 1 college science course in prior 5 years 7, 78 %
Took a science methods course at some time 8, 89 %
Teaching One or More Classes Out-Of-Field (OOF) 3, 33 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1144 % Minority 33

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1120	98	45	25	8	18	226	20
Life	375	33	14	27	2	14	50	13
Physical Sci	389	34	15	26	3	20	82	21
Earth Science	266	23	10	27	3	30	94	35
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	90	8	6	15	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 60 9th Grade Median 60

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Enthusiastic and dedicated teachers
2 Administrative support
3 Media center support
4 Lab orientation
5 Facilities and equipment

Needs (most frequently mentioned)

1 Equipment (microscopes, microcomputers)
2 Rooms for floating teachers
3 More lab training for some teachers
4 Lab manuals and textbooks
5 Smaller class size

Highest Rated Questionnaire Items (teachers)

1 Chairperson
2 Teacher satisfaction
3 Textbook selection
4 Objectives awareness
5 Managing labs
6 Reporting progress
7 Library acquisitions

Lowest Rated Questionnaire Items (teachers)

1 Availability of computers
2 Computer use
3 Teacher selection
4 Developing budget
5 Inservice

5/TD
WALKER
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WALKER JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.33	34.5
07	Laboratories	3.00	41.5
08	Equipment	3.00	41.5
09	Supplies	3.67	28.0
10	Safety Knowledge	4.00	22.0
11	Textbooks	3.67	28.0
12	Manuals		
13	Resources	3.00	41.5
14	Media	3.67	28.0
15	Avail Computers	1.00	53.5
16	Computer Use	1.00	53.5
17	Community in Class	3.33	34.5
18	Extend Prog to Comm	4.33	13.0
19	Parents aware	4.33	13.0
23	Career Opportunities	4.33	13.0
24	Prep for Future in Sci	3.33	34.5
25	Selecting Sci Courses	3.33	34.5
26	Objectives Awareness	4.67	5.5
27	Coor Between Schools	2.00	49.5
28	Coor with Math	3.00	41.5
29	Coor with Feeders	2.33	47.0
30	Lesson Plans and Inst	4.33	13.0
35	Homework	4.33	13.0
36	Manage Labs	4.67	5.5
37	Class Discipline	4.00	22.0
38	Lab Discipline	4.00	22.0
39	Involve in Clubs	3.33	34.5
40	Class Size	2.33	47.0
41	Lab Class Size	2.00	49.5
42	Library Research	3.00	41.5
43	Lab Skills	3.67	28.0
44	Textbook Skills	3.33	34.5
45	Student Enthusiasm	4.33	13.0
46	On Task in Class	3.67	28.0
47	On Task in Lab	4.00	22.0
48	Teacher Tests and Plans	2.67	45.0
49	Teach Tests and Advice	3.33	34.5
50	Required Reading	3.33	34.5
51	District Tests	2.33	47.0
52	Essay Questions	4.33	13.0
53	Graphs on Tests	4.33	13.0
54	Process Skills on Tests	4.00	22.0
55	Reporting Progress	4.67	5.5
60	Inservice	1.67	51.0
61	Chairperson	5.00	2.0
62	Science Coordinator	4.33	13.0
63	Teacher Preparation	4.33	13.0
64	Admin Support	4.00	22.0
65	Teacher Satisfaction	5.00	2.0
66	Teacher Selection	1.00	53.5
67	Textbook Selection	5.00	2.0
68	Library Acquisitions	4.67	5.5
69	Involve With Guidance	4.00	22.0
70	Planning Time	3.00	41.5
71	Developing Budget	1.00	53.5
72	Using Funds	4.33	13.0

S/TD
WALKER/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WALKER JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
61	Chairperson	5.00	2.0
65	Teacher Satisfaction	5.00	2.0
67	Textbook Selection	5.00	2.0
26	Objectives Awareness	4.67	5.5
36	Manage Labs	4.67	5.5
55	Reporting Progress	4.67	5.5
68	Library Acquisitions	4.67	5.5
18	Extend Prog to Comm	4.33	13.0
19	Parents aware	4.33	13.0
23	Career Opportunities	4.33	13.0
30	Lesson Plans and Inst	4.33	13.0
35	Homework	4.33	13.0
45	Student Enthusiasm	4.33	13.0
52	Essay Questions	4.33	13.0
53	Graphs on Tests	4.33	13.0
62	Science Coordinator	4.33	13.0
63	Teacher Preparation	4.33	13.0
72	Using Funds	4.33	13.0
10	Safety Knowledge	4.00	22.0
37	Class Discipline	4.00	22.0
38	Lab Discipline	4.00	22.0
47	On Task in Lab	4.00	22.0
54	Process Skills on Tests	4.00	22.0
64	Admin Support	4.00	22.0
69	Involve With Guidance	4.00	22.0
09	Supplies	3.67	28.0
11	Textbooks	3.67	28.0
14	Media	3.67	28.0
43	Lab Skills	3.67	28.0
46	On Task in Class	3.67	28.0
06	Classrooms	3.33	34.5
17	Community in Class	3.33	34.5
24	Prep for Future in Sci	3.33	34.5
25	Selecting Sci Courses	3.33	34.5
39	Involve in Clubs	3.33	34.5
44	Textbook Skills	3.33	34.5
49	Teach Tests and Advice	3.33	34.5
50	Required Reading	3.33	34.5
07	Laboratories	3.00	41.5
08	Equipment	3.00	41.5
13	Resources	3.00	41.5
28	Coor with Math	3.00	41.5
42	Library Research	3.00	41.5
70	Planning Time	3.00	41.5
48	Teacher Tests and Plans	2.67	45.0
29	Coor with Feeders	2.33	47.0
40	Class Size	2.33	47.0
51	District Tests	2.33	47.0
27	Coor Between Schools	2.00	49.5
41	Lab Class Size	2.00	49.5
60	Inservice	1.67	51.0
15	Avail Computers	1.00	53.5
16	Computer Use	1.00	53.5
66	Teacher Selection	1.00	53.5
71	Developing Budget	1.00	53.5
12	Manuals		

5/TD
WALKER/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WALKER JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	33	67	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	33	67	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	33	33	33
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	0	100	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	12
83	Discussion, all students have some opportunity to talk.	10
84	Recitation, students respond to teacher questions or assignments.	4
85	Demonstrations, teachers or students use concrete materials to illustrate points.	3
86	Laboratory, students work individually or in pairs.	19
87	Films, filmstrips, TV.	8
88	Field trips.	3
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	17
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	7
93	Reports from students.	7
94	Other, please specify.	0

5/TD
JR/SCI/QUE.15
2/1/84

March 27, 1984

MEMORANDUM

TO: MYRON E. SINGHAUS
Principal, Walker Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	60	52	60

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	65	67	67	70	51	49	69	76	67	67	61	62
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	60	65	55	56	53	54	44	45	58	59	47	52

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/13/554
cc: Dallas Maddron
Science Department Chairperson

WALKER JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, administrative support, media center support, laboratory orientation, facilities, and equipment to be strengths of the science program.

2. The principal and teachers perceived equipment, facilities, lab training for some teachers, lab manuals and textbooks, and class size as areas of the science program which need strengthening.

3. Teachers gave their highest ratings to the department chairperson, satisfaction with their teaching assignment, involvement in textbook selection, helping students become aware of objectives, managing labs, reporting progress of students, and involvement in library acquisitions.

4. Teachers gave their lowest ratings to the availability and use of computers, involvement in teacher selection, involvement in developing the budget, and inservice.

5. Three teachers (33%) were teaching at least one science course out-of-field. This compared to 21% for the combined group of junior high school teachers.

6. In the five years prior to the 1983-84 school year, 78% of the science teachers completed at least one college level science content course. This compared to 63% for the combined group.

7. Twenty-two percent (22%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group.

8. Average class size was 25 compared to 27 for the combined group of junior high schools.

9. Six sections of biology were taught in grade 9.

10. Average teaching experience was 8 years compared to 12 for the combined group.

11. The 1984 CTBS-U seventh grade science subtest median for Walker Junior High School was 60 compared to the district median of 57.

12. The 1984 CTBS-U ninth grade science subtest median for Walker Junior High School was 60 compared to the district median of 60.

5/TD/1
JR/HS/NP.17

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
WESTRIDGE JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 8 Life 3 Physical Science 3 Earth Science 1
General Science 2 Biology 1 Teaching two different science subjects 2

Rank 3 7, 88 % Rank 2 1, 12 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 8 First Year Teachers 2
Took at least 1 college science course in prior 5 years 3, 38 %
Took a science methods course at some time 5, 63 %
Teaching One or More Classes Out-Of-Field (OOF) 3, 38 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1089 % Minority 41

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1032	95	38	29	11	26	276	27
Life	346	32	14	25	4	29	50	14
Physical Sci	339	31	12	28	2	17	77	23
Earth Science	147	13	5	29	0	0	0	0
Gen. Sci.	142	13	5	28	3	60	91	64
Biology	58	5	2	29	2	100	58	100

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 60 9th Grade Median 60

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Enthusiastic, supportive teachers
2 Administrative support
3 Labs
4 Advanced classes
5 Support of parents

Needs (most frequently mentioned)

1 Rearrangement of lab facilities
2 Lab equipment
3 More certified teachers, training
4 Small group activity
5 Modified curriculum
6 Science fair
7 Field trips

Highest Rated Questionnaire Items (teachers)

1 Lesson plans and instruction
2 Supplies
3 Media
4 Lab discipline
5 Teacher preparation
6 Administrative support

Lowest Rated Questionnaire Items (teachers)

1 Coordination with feeder schools
2 Computer use
3 Developing budget
4 Involvement in clubs
5 Coordination with math

5/TD
WESTRIDGE
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WESTRIDGE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.25	13.5
07	Laboratories	2.75	41.5
08	Equipment	4.25	13.5
09	Supplies	4.75	4.0
10	Safety Knowledge	4.00	18.5
11	Textbooks	3.25	32.0
12	Manuals		
13	Resources	3.75	23.5
14	Media	4.75	4.0
15	Avail Computers	3.00	37.5
16	Computer Use	1.25	54.0
17	Community in Class	3.25	32.0
18	Extend Prog to Comm	2.50	46.0
19	Parents aware	3.25	32.0
23	Career Opportunities	3.25	32.0
24	Prep for Future in Sci	4.00	18.5
25	Selecting Sci Courses	2.50	46.0
26	Objectives Awareness	4.00	18.5
27	Coor Between Schools	2.33	48.0
28	Coor with Math	1.75	51.0
29	Coor with Feeders	1.00	55.0
30	Lesson Plans and Inst	5.00	1.0
35	Homework	3.50	27.0
36	Manage Labs	4.00	18.5
37	Class Discipline	4.50	9.0
38	Lab Discipline	4.75	4.0
39	Involve in Clubs	1.50	52.5
40	Class Size	3.75	23.5
41	Lab Class Size	3.50	27.0
42	Library Research	2.50	46.0
43	Lab Skills	3.25	32.0
44	Textbook Skills	3.25	32.0
45	Student Enthusiasm	2.75	41.5
46	On Task in Class	3.25	32.0
47	On Task in Lab	3.50	27.0
48	Teacher Tests and Plans	4.00	18.5
49	Teach Tests and Advice	3.75	23.5
50	Required Reading	2.75	41.5
51	District Tests	2.00	49.5
52	Essay Questions	4.50	9.0
53	Graphs on Tests	4.25	13.5
54	Process Skills on Tests	4.25	13.5
55	Reporting Progress	4.00	18.5
60	Inservice	3.00	37.5
61	Chairperson	4.67	7.0
62	Science Coordinator	4.33	11.0
63	Teacher Preparation	4.75	4.0
64	Admin Support	4.75	4.0
65	Teacher Satisfaction	3.75	23.5
66	Teacher Selection	2.00	49.5
67	Textbook Selection	3.00	37.5
68	Library Acquisitions	3.00	37.5
69	Involve With Guidance	2.67	44.0
70	Planning Time	2.75	41.5
71	Developing Budget	1.50	52.5
72	Using Funds	4.50	9.0

S/ID
WESTRIDGE/T
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WESTRIDGE JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
30	Lesson Plans and Inst	5.00	1.0
09	Supplies	4.75	4.0
14	Media	4.75	4.0
38	Lab Discipline	4.75	4.0
63	Teacher Preparation	4.75	4.0
64	Admin Support	4.75	4.0
61	Chairperson	4.67	7.0
37	Class Discipline	4.50	9.0
52	Essay Questions	4.50	9.0
72	Using Funds	4.50	9.0
62	Science Coordinator	4.33	11.0
06	Classrooms	4.25	13.5
08	Equipment	4.25	13.5
53	Graphs on Tests	4.25	13.5
54	Process Skills on Tests	4.25	13.5
10	Safety Knowledge	4.00	18.5
24	Prep for Future in Sci	4.00	18.5
26	Objectives Awareness	4.00	18.5
36	Manage Labs	4.00	18.5
48	Teacher Tests and Plans	4.00	18.5
55	Reporting Progress	4.00	18.5
13	Resources	3.75	23.5
40	Class Size	3.75	23.5
49	Teach Tests and Advice	3.75	23.5
65	Teacher Satisfaction	3.75	23.5
35	Homework	3.50	27.0
41	Lab Class Size	3.50	27.0
47	On Task in Lab	3.50	27.0
11	Textbooks	3.25	32.0
17	Community in Class	3.25	32.0
19	Parents aware	3.25	32.0
23	Career Opportunities	3.25	32.0
43	Lab Skills	3.25	32.0
44	Textbook Skills	3.25	32.0
46	On Task in Class	3.25	32.0
15	Avail Computers	3.00	37.5
60	Inservice	3.00	37.5
67	Textbook Selection	3.00	37.5
68	Library Acquisitions	3.00	37.5
07	Laboratories	2.75	41.5
45	Student Enthusiasm	2.75	41.5
50	Required Reading	2.75	41.5
70	Planning Time	2.75	41.5
69	Involve With Guidance	2.67	44.0
18	Extend Prog to Comm	2.50	46.0
25	Selecting Sci Courses	2.50	46.0
42	Library Research	2.50	46.0
27	Coor Between Schools	2.33	48.0
51	District Tests	2.00	49.5
66	Teacher Selection	2.00	49.5
28	Coor with Math	1.75	51.0
39	Involve in Clubs	1.50	52.5
71	Developing Budget	1.50	52.5
16	Computer Use	1.25	54.0
29	Coor with Feeders	1.00	55.0
12	Manuals		

5/TD
WESTRIDGE/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WESTRIDGE JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	50	50	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	75	25	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	50	25	25
34	Do you deal with curriculum scope and sequence in your planning?	75	0	25
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	75	25	0
58	Should common school-level exams for each subject be administered?	75	25	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	20
83	Discussion, all students have some opportunity to talk.	9
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	6
86	Laboratory, students work individually or in pairs.	11
87	Films, filmstrips, TV.	11
88	Field trips.	1
89	Tests.	10
90	Deskwork, workbooks, and reading assignments.	16
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	4
93	Reports from students.	3
94	Other, please specify.	0

5/TD
JR/SCI/QUE.14
2/1/84

March 27, 1984

MEMORANDUM

TO: EDDIE SNEED
Principal, Westridge Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
60	60	56	60

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	66	68	68	68	53	50	71	76	70	69	64	65
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	64	66	54	58	55	57	47	58	59	61	50	51

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

WESTRIDGE JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived teachers, administrative support, labs, advanced classes, and supportive parents to be strengths of the science program.

2. The principal and teachers perceived rearrangement of lab facilities, lab equipment, teacher training, small group activities, a modified curriculum, and more involvement in science fairs and field trips as areas of the science program which need strengthening.

3. Teachers gave their highest ratings to lesson plans, supplies, media, lab discipline, teacher preparation, and administrative support.

4. Teachers gave their lowest ratings to coordination with feeder schools, computer use, developing the budget, student involvement in clubs, and coordination with math.

5. Twelve percent (12%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group of junior high school teachers.

6. The average teaching experience was eight years compared to 12 years for the combined group.

7. Three teachers (38%) were teaching at least one science course out-of-field. This compared to 21% for the combined group.

8. The minority population was 41% compared to 28% for the combined group.

9. The average science class size was 29 compared to 27 for the combined group.

10. Two sections of biology were taught in grade 9.

11. Teachers indicated that 11% of class time was devoted to laboratory experiences where students work individually or in pairs. This compared to 19% for the combined group.

12. The 1984 CTBS-U seventh grade science subtest median for Westridge Junior High School was 60 compared to the district median of 57.

13. The 1984 CTBS-U ninth grade science subtest median for Westridge Junior High School was 60 compared to the district median of 60.

5/TD/1
JR/HS/NP.18

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
WINTER PARK JUNIOR HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 5 Life 3 Physical Science 3 Earth Science 2
General Science 0 Biology 0 Teaching two different science subjects 3

Rank 3 4, 80 % Rank 2 1, 20 % Rank 1 or 1A 0, 0 %

Average Years Teaching Experience 12 First Year Teachers 0
Took at least 1 college science course in prior 5 years 3, 60 %
Took a science methods course at some time 5, 100%
Teaching One or More Classes Out-Of-Field (OOF) 2, 40 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 681 % Minority 30

	Enroll	% Total Jr. H.S. Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	600	88	22	31	10	43	283	47
Life	213	31	8	27	0	0	0	0
Physical Sci	221	32	8	28	4	50	117	53
Earth Science	166	24	6	28	6	100	166	100
Gen. Sci.	0	0	0	0	0	0	0	0
Biology	0	0	0	0	0	0	0	0

CTBS SUBTEST SCORES - February, 1984

7th Grade Median 60 9th Grade Median 67

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Good facilities
2 Experienced faculty
3 Supportive community
4 Student participation

Needs (most frequently mentioned)

1 Full year of earth science
2 More hands-on in grade 7 and 8
3 Biology in grade 9
4 Equipment
5 Textbooks with more depth
6 Thinking skills

Highest Rated Questionnaire Items (teachers)

1 Classrooms
2 Laboratories
3 Safety knowledge
4 Community involvement in class
5 Career opportunities

Lowest Rated Questionnaire Items (teachers)

1 Developing budget
2 District tests
3 Involvement in clubs
4 Coordination with feeder schools
5 Computer use
6 Availability of computers
7 Manuals

5/TD
WINTER/PK
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WINTER PARK JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	5.00	14.0
07	Laboratories	5.00	14.0
08	Equipment	4.33	31.0
09	Supplies	4.33	31.0
10	Safety Knowledge	5.00	14.0
11	Textbooks	3.67	37.5
12	Manuals	1.00	53.0
13	Resources	2.33	46.0
14	Media	3.67	37.5
15	Retail Computers	1.00	53.0
16	Computer Use	1.00	53.0
17	Community in Class	5.00	14.0
18	Extend Prog to Comm	1.33	48.5
19	Parents aware	3.00	43.0
23	Career Opportunities	5.00	14.0
24	Prep for Future in Sci	5.00	14.0
25	Selecting Sci Courses	3.00	43.0
26	Objectives Awareness	5.00	14.0
27	Coor Between Schools	3.00	43.0
28	Coor with Math	3.67	37.5
29	Coor with Feeders	1.00	53.0
30	Lesson Plans and Inst	5.00	14.0
35	Homework	5.00	14.0
36	Manage Labs	5.00	14.0
37	Class Discipline	5.00	14.0
38	Lab Discipline	5.00	14.0
39	Involve in Clubs	1.00	53.0
40	Class Size	4.33	31.0
41	Lab Class Size	5.00	14.0
42	Library Research	5.00	14.0
43	Lab Skills	5.00	14.0
44	Textbook Skills	5.00	14.0
45	Student Enthusiasm	4.33	31.0
46	On Task in Class	5.00	14.0
47	On Task in Lab	5.00	14.0
48	Teacher Tests and Plans	5.00	14.0
49	Teach Tests and Advice	5.00	14.0
50	Required Reading	5.00	14.0
51	District Tests	1.00	53.0
52	Essay Questions	4.33	31.0
53	Graphs on Tests	3.67	37.5
54	Process Skills on Tests	5.00	14.0
55	Reporting Progress	3.67	37.5
60	Inservice	4.33	31.0
61	Chairperson	5.00	14.0
62	Science Coordinator	5.00	14.0
63	Teacher Preparation	3.33	41.0
64	Admin Support	5.00	14.0
65	Teacher Satisfaction	5.00	14.0
66	Teacher Selection	1.33	48.5
67	Textbook Selection	5.00	14.0
68	Library Acquisitions	4.33	31.0
69	Involve With Guidance	2.33	46.0
70	Planning Time	3.67	37.5
71	Developing Budget	1.00	53.0
72	Using Funds	2.33	46.0

S/TD
WP/J/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WINTER PARK JUNIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	5.00	14.0
07	Laboratories	5.00	14.0
10	Safety Knowledge	5.00	14.0
17	Community in Class	5.00	14.0
23	Career Opportunities	5.00	14.0
26	Objectives Awareness	5.00	14.0
35	Homework	5.00	14.0
36	Manage Labs	5.00	14.0
37	Class Discipline	5.00	14.0
38	Lab Discipline	5.00	14.0
41	Lab Class Size	5.00	14.0
42	Library Research	5.00	14.0
43	Lab Skills	5.00	14.0
44	Textbook Skills	5.00	14.0
46	On Task in Class	5.00	14.0
47	On Task in Lab	5.00	14.0
50	Required Reading	5.00	14.0
61	Chairperson	5.00	14.0
62	Science Coordinator	5.00	14.0
64	Admin Support	5.00	14.0
65	Teacher Satisfaction	5.00	14.0
67	Textbook Selection	5.00	14.0
30	Lesson Plans and Inst	5.00	14.0
54	Process Skills on Tests	5.00	14.0
24	Prep for Future in Sci	5.00	14.0
49	Teach Tests and Advice	5.00	14.0
48	Teacher Tests and Plans	5.00	14.0
08	Equipment	4.33	31.0
09	Supplies	4.33	31.0
40	Class Size	4.33	31.0
45	Student Enthusiasm	4.33	31.0
52	Essay Questions	4.33	31.0
60	Inservice	4.33	31.0
68	Library Acquisitions	4.33	31.0
11	Textbooks	3.67	37.5
14	Media	3.67	37.5
28	Coor with Math	3.67	37.5
53	Graphs on Tests	3.67	37.5
55	Reporting Progress	3.67	37.5
70	Planning Time	3.67	37.5
63	Teacher Preparation	3.33	41.0
19	Parents aware	3.00	43.0
27	Coor Between Schools	3.00	43.0
25	Selecting Sci Courses	3.00	43.0
69	Involve With Guidance	2.33	46.0
13	Resources	2.33	46.0
72	Using Funds	2.33	46.0
18	Extend Prog to Comm	1.33	48.5
66	Teacher Selection	1.33	48.5
12	Manuals	1.00	53.0
15	Avail Computers	1.00	53.0
16	Computer Use	1.00	53.0
29	Coor with Feeders	1.00	53.0
39	Involve in Clubs	1.00	53.0
51	District Tests	1.00	53.0
71	Developing Budget	1.00	53.0

5/TD
WP/J/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WINTER PARK JUNIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	0	100	0
31	Are there established procedures for monitoring lesson plans?	0	100	0
32	Do you think that a science program for the gifted should be provided at your school?	0	100	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	100	0
58	Should common school-level exams for each subject be administered?	33	67	0
59	Should common district-level exams be administered?	67	33	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	15
83	Discussion, all students have some opportunity to talk.	10
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	12
86	Laboratory, students work individually or in pairs.	20
87	Films, filmstrips, TV.	4
88	Field trips.	0
89	Tests.	6
90	Deskwork, workbooks, and reading assignments.	8
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	10
93	Reports from students.	5
94	Other, please specify.	0

5/TD
JR/SCI/QUE.4
2/1/84

March 27, 1984

MEMORANDUM

TO: ROBERT F. LENGAUER
Principal, Winter Park Junior High School

ATTENTION: JACQUELYN H. STILL
Senior Administrator for Program Evaluation

FROM: WESLEY E. BLAMICK
Senior Manager for Program Evaluation

SUBJECT: SECONDARY SCIENCE PROGRAM EVALUATION
SCIENCE SUBTEST

Thank you very much for your cooperation with the secondary science program evaluation. The information that you and your staff provided has been invaluable.

As you may recall, the test score sections of the science profiles for the combined junior high schools and for your school were left blank. The CTBS science subtest scores now are available and will be used to complete the profiles for the final evaluation reports. However, because scores may be useful to you now, they are being reported to you at this time.

For the national norm group, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
50	50	50	50

For the combined OCPS junior highs, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
54	57	56	60

For your school, the scores are:

7th Grade Median		9th Grade Median	
1983	1984	1983	1984
60	60	64	67

The CTBS science subtest is composed of parts which reflect content areas. Percentages of right responses by content areas have been reported on computer printouts. This additional information may be useful to you and thus is included in this memo. Percentages of right responses for 1983 and 1984 by

content area and grade level for the nation, for the combined OCPS junior highs, and for your school are:

	Botany		Zoology		Ecology		Physics		Chemistry		Land, Sea or Space	
	83	84	83	84	83	84	83	84	83	84	83	84
7th Grade Nation	60	60	64	64	48	48	68	68	63	63	60	60
Jr. High	62	64	65	68	50	51	69	73	65	67	61	63
Your School	63	67	63	69	50	53	68	73	66	69	61	63
9th Grade Nation	59	59	55	55	51	51	44	44	59	59	45	45
Jr. High	62	65	55	57	54	56	46	48	58	60	50	52
Your School	65	65	59	59	58	56	51	50	64	63	51	53

The CTBS test score information reported in this memo, as well as other information about the scores and test items, can be found in computer printouts which have been sent to your school.

Please let me know if you have questions about this memo or about the secondary science program evaluation. Thank you again for your continued cooperation.

5/ls/554
cc: Dallas Maddron
Science Department Chairperson

WINTER PARK JUNIOR HIGH SCHOOL
NOTEWORTHY POINTS

1. The principal and teachers perceived facilities, teachers, community support, and student participation as strengths of the science program.

2. The principal and teachers perceived a full year of earth science, more hands-on activities, biology in grade 9, equipment, textbooks, and teaching thinking skills as areas of the science program which need strengthening.

3. Teachers gave their highest ratings to classrooms, laboratories, safety knowlege, community involvement, and career opportunities.

4. Teachers gave their lowest ratings to involvement in developing the budget, use of district tests, involvement in clubs, coordination with feeder schools, computer use, availability of computers, and lab manuals.

5. Twenty percent (20%) of the science teachers held a Rank 2 or higher certificate. This compared to 31% for the combined group of junior high school science teachers.

6. Two teachers (40%) were teaching at least one science course out-of-field. This compared to 21% for the combined group of junior high school teachers.

7. Average class size was 31 compared to 27 for the combined group.

8. All teachers interviewed said that they evaluated laboratory experiences in determining letter grades for students.

9. The 1984 CTBS-U seventh grade science subtest median for Winter Park Junior High School was 60 compared to the district median of 57.

10. The 1984 CTBS-U ninth grade science subtest median for Winter Park Junior High School was 67 compared to the district median of 60.

5/TD/1
JR/HS/NP.19

APPENDIX C

HIGH SCHOOLS

COMBINED DATA SUMMARIES

Contents:

1983-84 Science Profile..... 174

Ratings And Ranks By Item..... 175

Ratings and Ranks By Rank..... 176

Teacher Response Percentages..... 177

Science Program Strengths..... 178

Science Areas in Need of Strengthening..... 179

Special Provisions to Meet Student Needs..... 180

Noteworthy Points..... 181

5/App/C
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
HIGH SCHOOLS N = 9

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 109 Biology 74 Chemistry 20 Physics 9 General Science 13
Physical Science 6 Earth Science 3 Teaching two different science subjects 16

Rank 3 49, 45 % Rank 2 58, 53 % Rank 1 or 1A 2, 02%

Average Years Teaching Experience 12 First Year Teachers 11
Took at least 1 college science course in prior 5 years 62, 57 %
Took a science methods course at some time 86, 79 %
Teaching One or More Classes Out-Of-Field (OOF) 24, 22 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 16808 % Minority 28 Science Unduplicated 12941, 77%

	Enroll	% Total HS Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	13496	80	509	27	86	17	2139	16
Biology	8232	49	311	26	54	17	1324	16
Chemistry	2318	14	87	27	7	8	164	7
Physics	734	4	31	24	1	3	15	2
Gen. Sci.	1554	9	57	27	24	42	636	41
Phy. Sci.	456	3	15	30	0	0	0	0
Earth Sci.	202	1	8	25	0	0	0	0

Advanced Placement Biology 23 (1 class) Advanced Placement Chemistry 23 (2 classes)

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median Score 35 National Norm Group 41
AAPT/NSTA Physics Median Score 32 National Norm Group 31

PERCEPTIONS OF TEACHERS AND PRINCIPALS AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Cooperative, able teachers
2 Curriculum
3 Facilities, equipment, resources
4 Chairperson
5 Meeting needs of students

Needs (most frequently mentioned)

1 Equipment, facilities, supplies, labs
2 Preparation time, someone to prepare labs
3 More certified and qualified teachers, training
4 Reduced class and lab size
5 Improved curriculum

Highest Rated Questionnaire Items (teachers)

1 Teacher preparation
2 Teacher satisfaction
3 Lab discipline
4 Class discipline
5 Objectives awareness

Lowest Rated Questionnaire Items (teachers)

1 Computer use
2 Availability of computers
3 Teacher selection
4 Budget development
5 District tests

5/TD
ALL/SENIOR
7/5/84

183

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
SENIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.74	24.5
07	Laboratories	3.48	30.0
08	Equipment	3.03	37.0
09	Supplies	3.32	32.0
10	Safety Knowledge	4.23	7.0
11	Textbooks	4.00	14.0
12	Manuals	4.09	11.0
13	Resources	3.13	35.0
14	Media	3.29	33.0
15	Avail Computers	1.45	55.0
16	Computer Use	1.40	56.0
17	Community in Class	2.71	43.0
18	Extend Prog to Comm	2.50	46.0
19	Parentr aware	2.61	44.0
23	Career Opportunities	4.03	13.0
24	Prep for Future in Sci	3.90	18.0
25	Selecting Sci Courses	3.83	21.0
26	Objectives Awareness	4.39	4.5
27	Coor Between Schools	2.28	48.0
28	Coor with Math	2.24	49.0
29	Coor with Feeders	2.04	51.0
30	Lesson Plans and Inst	4.19	9.0
35	Homework	4.10	10.0
36	Manage Labs	4.26	6.0
37	Class Discipline	4.39	4.5
38	Lab Discipline	4.42	3.0
39	Involve in Clubs	3.00	39.0
40	Class Size	3.45	31.0
41	Lab Class Size	3.16	34.0
42	Library Research	2.81	41.0
43	Lab Skills	3.07	36.0
44	Textbook Skills	3.50	29.0
45	Student Enthusiasm	3.55	27.0
46	On Task in Class	3.87	19.5
47	On Task in Lab	3.81	22.0
48	Teacher Tests and Plans	3.74	24.5
49	Teach Tests and Advice	3.77	23.0
50	Required Reading	2.32	47.0
51	District Tests	1.79	52.0
52	Essay Questions	3.00	39.0
53	Graphs on Tests	3.52	28.0
54	Process Skills on Tests	3.94	16.0
55	Reporting Progress	3.00	39.0
60	Inservice	2.77	42.0
61	Chairperson	4.21	8.0
62	Science Coordinator	3.93	17.0
63	Teacher Preparation	4.45	1.5
64	Admin Support	3.61	26.0
65	Teacher Satisfaction	4.45	1.5
66	Teacher Selection	1.62	54.0
67	Textbook Selection	3.96	15.0
68	Library Acquisitions	4.04	12.0
69	Involve With Guidance	2.60	45.0
70	Planning Time	2.10	50.0
71	Developing Budget	1.72	53.0
72	Using Funds	3.87	19.5

S/TD
SENIOR/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
SENIOR HIGH AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
63	Teacher Preparation	4.45	1.5
65	Teacher Satisfaction	4.45	1.5
38	Lab Discipline	4.42	3.0
26	Objectives Awareness	4.39	4.5
37	Class Discipline	4.39	4.5
36	Manage Labs	4.26	6.0
10	Safety Knowledge	4.23	7.0
61	Chairperson	4.21	8.0
30	Lesson Plans and Inst	4.19	9.0
35	Homework	4.10	10.0
12	Manuals	4.09	11.0
68	Library Acquisitions	4.04	12.0
23	Career Opportunities	4.03	13.0
11	Textbooks	4.00	14.0
67	Textbook Selection	3.96	15.0
54	Process Skills on Tests	3.94	16.0
62	Science Coordinator	3.93	17.0
24	Prep for Future in Sci	3.90	18.0
46	On Task in Class	3.87	19.5
72	Using Funds	3.87	19.5
25	Selecting Sci Courses	3.83	21.0
47	On Task in Lab	3.81	22.0
49	Teach Tests and Advice	3.77	23.0
06	Classrooms	3.74	24.5
48	Teacher Tests and Plans	3.74	24.5
64	Admin Support	3.61	26.0
45	Student Enthusiasm	3.55	27.0
53	Graphs on Tests	3.52	28.0
44	Textbook Skills	3.50	29.0
07	Laboratories	3.48	30.0
40	Class Size	3.45	31.0
09	Supplies	3.32	32.0
14	Media	3.29	33.0
41	Lab Class Size	3.16	34.0
13	Resources	3.13	35.0
43	Lab Skills	3.07	36.0
08	Equipment	3.03	37.0
39	Involve in Clubs	3.00	39.0
52	Essay Questions	3.00	39.0
55	Reporting Progress	3.00	39.0
42	Library Research	2.81	41.0
60	Inservice	2.77	42.0
17	Community in Class	2.71	43.0
19	Parents aware	2.61	44.0
69	Involve With Guidance	2.60	45.0
18	Extend Prog to Comm	2.50	46.0
50	Required Reading	2.32	47.0
27	Coor Between Schools	2.28	48.0
28	Coor with Math	2.24	49.0
70	Planning Time	2.10	50.0
29	Coor with Feeders	2.04	51.0
51	District Tests	1.79	52.0
71	Developing Budget	1.72	53.0
66	Teacher Selection	1.62	54.0
15	Avail Computers	1.45	55.0
16	Computer Use	1.40	56.0

5/TD
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4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
SENIOR HIGH RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	81	19	0
21	Have you completed a safety training course?	13	87	0
22	Does science get a fair share of available funds at this school?	42	32	26
31	Are there established procedures for monitoring lesson plans?	77	23	0
32	Do you think that a science program for the gifted should be provided at your school?	65	29	7
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	90	3	7
34	Do you deal with curriculum scope and sequence in your planning?	90	10	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	39	55	7
58	Should common school-level exams for each subject be administered?	77	16	7
59	Should common district-level exams be administered?	81	13	7

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	22
83	Discussion, all students have some opportunity to talk.	13
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	5
86	Laboratory, students work individually or in pairs.	22
87	Films, filmstrips, TV.	5
88	Field trips.	1
89	Tests.	9
90	Deskwork, workbooks, and reading assignments.	8
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	5
93	Reports from students.	1
94	Other, please specify.	1

HIGH SCHOOL SCIENCE STRENGTHS
PRINCIPAL AND TEACHER RESPONSES BY NUMBER OF MENTIONS

Cooperation among teachers, interested teachers, stable faculty, enthusiastic teachers (28)

Course offerings, curriculum (12)

Facilities, equipment, resources, media (8)

Chairperson (7)

Teaching at level of students, meeting needs of students, realistic recognition of student ability (5)

Good teaching environment, administrative support for science and projects (4)

Well prepared, interested students (3)

Lab experiences (2)

Academic emphasis (2)

Unified department (2)

Willingness to do labs (2)

Good interaction with other departments and administration (1)

Community interest in science (1)

Science coordinator working with teachers (1)

Serves interested students (1)

Students do well in science and math in college (1)

Emphasis on thinking skills (1)

Courses designed for non-science students (1)

Small items for labs and class are obtained easily (1)

Media center support (1)

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HIGH SCHOOL SCIENCE AREAS IN NEED OF STRENGTHENING
PRINCIPAL AND TEACHER RESPONSES BY NUMBER OF MENTIONS

Renovated rooms, preparation rooms, more lab rooms, new science building, equipment, supplies (44)

More preparation time, someone to prepare labs (14)

Certification of teachers, more qualified teachers, teacher training (9)

Reduced class size, reduced lab size (7)

Clarification of course offerings, updating curriculum, greater continuity, health course, environmental health, advanced placement curriculum (7)

Two hour blocks of time for laboratories, more labs (4)

Textbooks: basic anatomy, general science, physical science, books for low ability students (4)

Intradepartmental communication, unity (3)

More supervision (3)

Challenging those with ability, more flexibility for advanced students (2)

Reduction of conflict about what should be taught (2)

More information (1)

Biological activities (1)

Thinking scientifically (1)

Articulation with other departments (1)

Stress on career education (1)

Increase computer accessibility (1)

Standardized tests (1)

Introduction of computer (1)

One-on-one approach (1)

More emphasis on science in junior high and elementary (1)

More classes for low ability students (1)

Reading scores to match textbook with student abilities (1)

Field trips (1)

5/HS/SS
TD:4

HIGH SCHOOL SCIENCE
SPECIAL PROVISIONS TO MEET STUDENT NEEDS
TEACHER RESPONSES

Provisions for High Ability Students

Eighty-seven percent (87%) of the teachers interviewed mentioned one or more specific provisions that they made for advanced or high ability students. The following provisions were mentioned: advanced courses in chemistry; biology; physics; supplemental materials; research reports; after school help; notebooks; monitoring student progress; advanced placement chemistry and biology; problem solving; acceleration within groups; additional or more complex math; more homework; library work; textbooks with higher reading levels; faster pace; different activities; current work being done in science; summer programs; college day; community involvement; extra laboratories; challenging questions; gifted biology; availability of scholarships and funding; science fair; uniformity of objectives; responding to details; more help with labs; extended concepts; film loops; guest speakers; field trips; and individual work.

Provisions for Average Ability Students

Sixty-eight percent (68%) of the teachers interviewed mentioned one or more specific provisions that they made for regular or average students. The following provisions were mentioned: middle level biology; special courses in biology; lists of ways to improve reading; after school help; courses geared to average students; less math in some science courses; a book geared to the average; expanded physical science course; speakers; parent volunteers; and graduated test items.

Provisions for Low Ability Students

Seventy-one percent (71%) of the teachers interviewed mentioned one or more special provisions that they made for basic or low ability students. The following provisions were mentioned: developmental or basic biology; general science; physical science; earth science; special reading help for students such as the use of glossaries and degrees of reading power; special help after school; special materials; questionnaires to assess student interests; pretests of students; special labs; field trips on school grounds; a seventh period; extra work; structured classes; special lab activities; individual help; and graduated test items.

5/HS/SS
TD:4

HIGH SCHOOL SCIENCE
NOTEWORTHY POINTS

1. Teachers, curriculum, facilities, equipment, and resources, the department chairperson, and meeting needs of students were the most frequently mentioned strengths of the science programs as perceived by principals and teachers interviewed.

2. Equipment, facilities, and supplies, preparation time and laboratory preparation, the certification and qualification of teachers, class and lab size, and curriculum were the most frequently mentioned areas of the science program in need of strengthening.

3. Of 109 teachers who taught science, 55% held a Rank 2 or higher certificate.

4. In the five years prior to the 1983-84 school year, 57% of the science teachers had completed a college level science content course.

5. The average years teaching experience for science teachers was 12.

6. Twenty-two percent (22%) of the science teachers were teaching one or more science classes out-of-field.

7. About 77% of the high school students were enrolled in a science course. About 3% of the 77% were enrolled in more than one science course.

8. Almost half (49%) of the 16,808 students enrolled in high school were taking courses in biology while 14% were enrolled in chemistry, and 4% were enrolled in physics. Approximately 13% of the students were enrolled in the courses of general science, physical science, and earth science.

9. Average class size in science was 27.

10. Advanced placement biology was taught at one school. Advanced placement chemistry was taught at two schools.

11. On the average, the five items rated highest by teachers were teacher preparation, teacher satisfaction with assignments, lab discipline, classroom discipline, and helping students become aware of objectives they were to achieve.

12. On the average, the five items rated lowest by teachers were computer use, availability of computers, involvement in teacher selection, involvement in budget development, and the use of district tests in planning learning opportunities for students.

13. All of the science teachers (100%) said that laboratory experiences are evaluated and used to determine letter grades for students.

14. District level exams should be administered in major subject areas, according to 81% of the teachers interviewed.

15. Thirteen percent (13%) of the teachers had completed a safety training course.

16. Teachers indicated that 22% of class time was devoted to laboratory experiences where students worked individually or in pairs.

17. Eighty-seven percent (87%) of the teachers interviewed mentioned one or more specific provisions that they made to meet the needs of advanced or high ability students. Sixty-eight percent (68%) of the teachers interviewed mentioned one or more specific provisions that they made to meet the needs of regular or average ability students. Seventy-one percent (71%) of the teachers interviewed mentioned one or more specific provisions that they made to meet the needs of basic or low ability students.

18. The ACS/NSTA chemistry test median score for first year chemistry students was 35. The national norm group median was 41.

19. The AAPT/NSTA physics test median score for first year physics students was 32. The national norm group median was 31.

5/HS/NP
TD:4

APPENDIX D

INDIVIDUAL HIGH SCHOOLS

DATA SUMMARIES

Contents:

1983-84 Science Profile

Ratings And Ranks By Item

Ratings and Ranks By Rank

Teacher Response Percentages

Noteworthy Points

Schools:

Apopka High..... 184

Boone..... 189

Colonial..... 194

Edgewater..... 199

Evans..... 204

Jones..... 209

Oak Ridge..... 214

West Orange..... 219

Winter Park High..... 224

5/App/D
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
APOPKA HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 12 Biology 10 Chemistry 2 Physics 1 General Science 2
Physical Science 0 Earth Science 0 Teaching two different science subjects 3

Rank 3 9 , 75 % Rank 2 3 , 25 % Rank 1 or 1A 0 , 0

Average Years Teaching Experience 7 First Year Teachers 0
Took at least 1 college science course in prior 5 years 3 , 25 %
Took a science methods course at some time 6 , 50 %
Teaching One or More Classes Out-Of-Field (OOF) 6 , 50 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1537 % Minority 29 Science Unduplicated 1136 , 74 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1145	74	41	28	9	22	241	21
Biology	817	53	27	30	7	26	203	25
Chemistry	136	9	5	27	2	40	38	28
Physics	55	4	2	28	0	0	0	0
Gen. Sci.	137	9	7	20	0	0	0	0
Phy. Sci.	0	0	0	0	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 0

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 34 AAPT/NSTA Physics Median 30

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Course offerings in chem, phys, biology
2 Lab experiences
3 Meet needs of students
4 Cooperative teachers

Needs (most frequently mentioned)

1 Certified teachers
2 Facilities (labs) and equipment
3 Textbooks for some classes
4 Better departmental communications
5 Lower class size
6 Improved offerings & activities in some biology

Highest Rated Questionnaire Items (teachers)

1 Teacher preparations
2 Managing labs
3 Media
4 Career opportunities
5 Objectives awareness
6 Lesson plans and instruction
7 Classroom discipline
8 Lab discipline
9 Process skills on tests

Lowest Rated Questionnaire Items (teachers)

1 Coordination between schools
2 Teacher selection
3 Developing budget
4 Computer use
5 Parents awareness
6 Class size
7 Lab class size

5/TD
APOPKA/H
4/2/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
APOPKA HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.00	17.5
07	Laboratories	3.67	27.0
08	Equipment	3.00	36.5
09	Supplies	3.33	34.0
10	Safety Knowledge	4.00	17.5
11	Textbooks	4.00	17.5
12	Manuals	3.50	30.0
13	Resources	4.00	17.5
14	Media	4.33	6.5
15	Avail Computers	2.00	48.0
16	Computer Use	1.67	51.5
17	Community in Class	2.33	45.0
18	Extend Prog to Comm	2.00	48.0
19	Parents aware	1.67	51.5
23	Career Opportunities	4.33	6.5
24	Prep for Future in Sci	4.00	17.5
25	Selecting Sci Courses	4.00	17.5
26	Objectives Awareness	4.33	6.5
27	Coor Between Schools	1.00	56.0
28	Coor with Math	2.67	41.5
29	Coor with Feeders	2.00	48.0
30	Lesson Plans and Inst	4.33	6.5
35	Homework	4.00	17.5
36	Manage Labs	4.67	1.5
37	Class Discipline	4.33	6.5
38	Lab Discipline	4.33	6.5
39	Involve in Clubs	3.33	34.0
40	Class Size	1.67	51.5
41	Lab Class Size	1.67	51.5
42	Library Research	2.33	45.0
43	Lab Skills	3.00	38.5
44	Textbook Skills	3.33	34.0
45	Student Enthusiasm	3.67	27.0
46	On Task in Class	3.33	34.0
47	On Task in Lab	3.67	27.0
48	Teacher Tests and Plans	4.00	17.5
49	Teach Tests and Advice	4.00	17.5
50	Required Reading	2.33	45.0
51	District Tests	2.67	41.5
52	Essay Questions	4.00	17.5
53	Graphs on Tests	4.00	17.5
54	Process Skills on Tests	4.33	6.5
55	Reporting Progress	3.67	27.0
60	Inservice	2.67	41.5
61	Chairperson	4.00	17.5
62	Science Coordinator	4.00	17.5
63	Teacher Preparation	4.67	1.5
64	Admin Support	3.33	34.0
65	Teacher Satisfaction	4.33	6.5
66	Teacher Selection	1.33	54.5
67	Textbook Selection	3.33	34.0
68	Library Acquisitions	4.00	17.5
69	Involve With Guidance	3.33	34.0
70	Planning Time	2.67	41.5
71	Developing Budget	1.33	54.5
72	Using Funds	3.67	27.0

5/TD
APOPKA/SR/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
APOPKA HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
36	Manage Labs	4.67	1.5
63	Teacher Preparation	4.67	1.5
14	Media	4.33	6.5
23	Career Opportunities	4.33	6.5
26	Objectives Awareness	4.33	6.5
30	Lesson Plans and Inst	4.33	6.5
37	Class Discipline	4.33	6.5
38	Lab Discipline	4.33	6.5
54	Process Skills on Tests	4.33	6.5
65	Teacher Satisfaction	4.33	6.5
06	Classrooms	4.00	17.5
10	Safety Knowledge	4.00	17.5
11	Textbooks	4.00	17.5
13	Resources	4.00	17.5
24	Prep for Future in Sci	4.00	17.5
25	Selecting Sci Courses	4.00	17.5
35	Homework	4.00	17.5
48	Teacher Tests and Plans	4.00	17.5
49	Teach Tests and Advice	4.00	17.5
52	Essay Questions	4.00	17.5
53	Graphs on Tests	4.00	17.5
61	Chairperson	4.00	17.5
62	Science Coordinator	4.00	17.5
68	Library Acquisitions	4.00	17.5
07	Laboratories	3.67	27.0
45	Student Enthusiasm	3.67	27.0
47	On Task in Lab	3.67	27.0
55	Reporting Progress	3.67	27.0
72	Using Funds	3.67	27.0
12	Manuals	3.50	30.0
09	Supplies	3.33	34.0
39	Involve in Clubs	3.33	34.0
44	Textbook Skills	3.33	34.0
46	On Task in Class	3.33	34.0
64	Admin Support	3.33	34.0
67	Textbook Selection	3.33	34.0
69	Involve With Guidance	3.33	34.0
08	Equipment	3.00	38.5
43	Lab Skills	3.00	38.5
20	Coor with Math	2.67	41.5
51	District Tests	2.67	41.5
60	Inservice	2.67	41.5
70	Planning Time	2.67	41.5
17	Community in Class	2.33	45.0
42	Library Research	2.33	45.0
50	Required Reading	2.33	45.0
15	Avail Computers	2.00	48.0
18	Extend Prog to Comm	2.00	48.0
29	Coor with Feeders	2.00	48.0
16	Computer Use	1.67	51.5
19	Parents aware	1.67	51.5
40	Class Size	1.67	51.5
41	Lab Class Size	1.67	51.5
66	Teacher Selection	1.33	54.5
71	Developing Budget	1.33	54.5
27	Coor Between Schools	1.00	56.0

S/TD
APOPKA/SR/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
APOPKA HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	67	33	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	33	33	33
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	33	67	0
58	Should common school-level exams for each subject be administered?	67	0	33
59	Should common district-level exams be administered?	67	0	33

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	17
83	Discussion, all students have some opportunity to talk.	20
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	9
86	Laboratory, students work individually or in pairs.	25
87	Films, filmstrips, TV.	5
88	Field trips.	1
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	3
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	3
93	Reports from students.	1
94	Other, please specify.	0

APOPKA HIGH SCHOOL
NOTEWORTHY POINTS

1. Course offerings in chemistry, physics, and biology, lab experiences, meeting needs of students, and teachers were mentioned by the principal and teachers interviewed as strengths of the science program.

2. Certification of science teachers, lab facilities and equipment, textbooks for some classes, better departmental communications, lower class size, and more offerings in biology were mentioned as aspects of the science program in need of strengthening.

3. The program entitled "Analysis of Factors Affecting the Growth of Fresh Water Algae" was considered to be an exemplary program.

4. Average years teaching experience was 7 compared to 12 years for the combined group of high school science teachers.

5. Of the twelve teachers who taught science, 25% held a Rank 2 or higher certificate compared to 55% for the combined group of high school science teachers.

6. In the five years prior to the 1983-84 school year, 25% of the science teachers completed a college level science content course compared to 57% for the combined group.

7. Six of twelve teachers (50%) were teaching one or more science courses out-of-field. This compared to 22% for the combined group of high school science teachers.

8. Teachers indicated that 25% of class time was devoted to laboratory experiences where students worked individually or in pairs. This compared to 22% for the combined group.

9. The ACS/NSTA chemistry test median score for first year chemistry students was 34 compared to 35 for the district.

10. The AAPT/NSTA physics test median score was 30 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
BOONE HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 13 Biology 11 Chemistry 2 Physics 1 General Science 0
Physical Science 0 Earth Science 0 Teaching two different science subjects 1

Rank 3 6 , 46 % Rank 2 7 , 54 % Rank 1 or 1A 0 , 0

Average Years Teaching Experience 14 First Year Teachers 1
Took at least 1 college science course in prior 5 years 6 , 46 %
Took a science methods course at some time 7 , 54 %
Teaching One or More Classes Out-Of-Field (OOF) 5 , 38 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1661 % Minority 05 Science Unduplicated 1348 , 81 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1412	85	54	26	15	28	392	28
Biology	1123	68	41	27	15	37	392	35
Chemistry	208	13	9	23	0	0	0	0
Physics	81	5	4	20	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Phy. Sci.	0	0	0	0	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 11

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 47 AAPT/NSTA Physics Median 41

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Students are well prepared
2 Academic emphasis
3 Some excellent teachers
4 Support from the department chairperson
5 Small items (supplies) are easily obtained

Needs (most frequently mentioned)

1 Reduce conflict about what should be taught
2 Facilities need renovated
3 Certify out-of-field teachers
4 Update curriculum
5 More supervision

Highest Rated Questionnaire Items (teachers)

1 Textbooks
2 Manuals
3 Class discipline
4 Teacher preparation
5 Management of labs
6 Lab discipline

Lowest Rated Questionnaire Items (teachers)

1 Computer use
2 Teacher selection
3 Availability of computers
4 Developing budget
5 Essay questions
6 Involvement with guidance

5/TD
BOONE
6/5/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
BOONE HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.67	26.5
07	Laboratories	3.00	42.5
08	Equipment	3.67	26.5
09	Supplies	4.00	17.5
10	Safety Knowledge	4.33	10.0
11	Textbooks	5.00	2.5
12	Manuals	5.00	2.5
13	Resources	3.33	36.0
14	Media	3.67	26.5
15	Avail Computers	1.33	53.5
16	Computer Use	1.00	55.5
17	Community in Class	3.33	36.0
18	Extend Prog to Comm	2.00	50.0
19	Parents aware	2.67	46.0
23	Career Opportunities	4.33	10.0
24	Prep for Future in Sci	4.00	17.5
25	Selecting Sci Courses	4.00	17.5
26	Objectives Awareness	4.33	10.0
27	Coor Between Schools	3.00	42.5
28	Coor with Math	3.33	36.0
29	Coor with Feeders	3.33	36.0
30	Lesson Plans and Inst	4.33	10.0
35	Homework	4.00	17.5
36	Manage Labs	4.67	5.5
37	Class Discipline	5.00	2.5
38	Lab Discipline	4.67	5.5
39	Involve in Clubs	3.67	26.5
40	Class Size	3.33	36.0
41	Lab Class Size	3.33	36.0
42	Library Research	3.67	26.5
43	Lab Skills	3.67	26.5
44	Textbook Skills	3.67	26.5
45	Student Enthusiasm	3.67	26.5
46	On Task in Class	3.67	26.5
47	On Task in Lab	3.33	36.0
48	Teacher Tests and Plans	2.67	46.0
49	Teach Tests and Advice	4.00	17.5
50	Required Reading	2.33	48.5
51	District Tests	3.00	42.5
52	Essay Questions	1.67	51.5
53	Graphs on Tests	4.00	17.5
54	Process Skills on Tests	4.33	10.0
55	Reporting Progress	3.00	42.5
60	Inservice	2.67	46.0
61	Chairperson	4.00	17.5
62	Science Coordinator	3.67	26.5
63	Teacher Preparation	5.00	2.5
64	Admin Support	3.33	36.0
65	Teacher Satisfaction	4.00	17.5
66	Teacher Selection	1.00	55.5
67	Textbook Selection	4.33	10.0
68	Library Acquisitions	4.33	10.0
69	Involve With Guidance	1.67	51.5
70	Planning Time	2.33	48.5
71	Developing Budget	1.33	53.5
72	Using Funds	3.33	36.0

5/TD
BOONE/I
4/5/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
BOONE HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
11	Textbooks	5.00	2.5
12	Manuals	5.00	2.5
37	Class Discipline	5.00	2.5
63	Teacher Preparation	5.00	2.5
36	Manage Labs	4.67	5.5
38	Lab Discipline	4.67	5.5
10	Safety Knowledge	4.33	10.0
23	Career Opportunities	4.33	10.0
26	Objectives Awareness	4.33	10.0
67	Textbook Selection	4.33	10.0
68	Library Acquisitions	4.33	10.0
30	Lesson Plans and Inst	4.33	10.0
54	Process Skills on Tests	4.33	10.0
25	Selecting Sci Courses	4.00	17.5
09	Supplies	4.00	17.5
35	Homework	4.00	17.5
53	Graphs on Tests	4.00	17.5
61	Chairperson	4.00	17.5
65	Teacher Satisfaction	4.00	17.5
24	Prep for Future in Sci	4.00	17.5
49	Teach Tests and Advice	4.00	17.5
06	Classrooms	3.67	26.5
08	Equipment	3.67	26.5
14	Media	3.67	26.5
39	Involve in Clubs	3.67	26.5
42	Library Research	3.67	26.5
43	Lab Skills	3.67	26.5
44	Textbook Skills	3.67	26.5
45	Student Enthusiasm	3.67	26.5
46	On Task in Class	3.67	26.5
62	Science Coordinator	3.67	26.5
13	Resources	3.33	36.0
17	Community in Class	3.33	36.0
28	Coor with Math	3.33	36.0
29	Coor with Feeders	3.33	36.0
40	Class Size	3.33	36.0
41	Lab Class Size	3.33	36.0
47	On Task in Lab	3.33	36.0
64	Admin Support	3.33	36.0
72	Using Funds	3.33	36.0
07	Laboratories	3.00	42.5
27	Coor Between Schools	3.00	42.5
51	District Tests	3.00	42.5
55	Reporting Progress	3.00	42.5
19	Parents aware	2.67	46.0
60	Inservice	2.67	46.0
48	Teacher Tests and Plans	2.67	46.0
50	Required Reading	2.33	48.5
70	Planning Time	2.33	48.5
18	Extend Prog to Comm	2.00	50.0
52	Essay Questions	1.67	51.5
69	Involve With Guidance	1.67	51.5
15	Avail Computers	1.33	53.5
71	Developing Budget	1.33	53.5
16	Computer Use	1.00	55.5
66	Teacher Selection	1.00	55.5

S/TD
BOONE/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
BOONE HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	33	33	33
31	Are there established procedures for monitoring lesson plans?	33	67	0
32	Do you think that a science program for the gifted should be provided at your school?	67	33	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	100	0	0
58	Should common school-level exams for each subject be administered?	100	0	0
59	Should common district-level exams be administered?	67	0	33

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	28
83	Discussion, all students have some opportunity to talk.	15
84	Recitation, students respond to teacher questions or assignments.	11
85	Demonstrations, teachers or students use concrete materials to illustrate points.	5
86	Laboratory, students work individually or in pairs.	15
87	Films, filmstrips, TV.	7
88	Field trips.	0
89	Tests.	12
90	Deskwork, workbooks, and reading assignments.	3
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	1
93	Reports from students.	1
94	Other, please specify.	1

5/TD
SR/SCI/QUE.1
4/2/84

BOONE HIGH SCHOOL
NOTEWORTHY POINTS

1. Students who are prepared academically, the emphasis on academics, excellent teachers, department chairperson support, and the ease of obtaining supplies when needed were mentioned as strengths of the science program by the principal and the teachers interviewed.

2. Reducing conflict about courses to be taught, renovating science facilities, getting science teachers certified, updating curriculum, and providing more supervision to science teachers were mentioned as aspects of the science program in need of strengthening.

3. One section of advanced placement in chemistry was taught.

4. Of the thirteen teachers who taught science, eleven (85%) taught one or more classes of biology.

5. Average teaching experience of science teachers was 14 years compared to 12 years for the combined group of high school science teachers.

6. In the five years prior to the 1983-84 school year, 46% of the science teachers completed a college level science content course compared to 57% for the combined group of high school science teachers.

7. Approximately 38% of the science teachers were teaching one or more science classes out-of-field. This compared to 22% for the combined group of high school science teachers.

8. Teachers indicated that 15% of class time was devoted to laboratory work where students worked individually or in pairs. This compared to 22% for the combined group.

9. All teachers interviewed (100%) said that common school level exams for each subject should be administered.

10. The ACS/NSTA chemistry test median score for first year chemistry students was 47 compared to 35 for the district.

11. The AAPT/NSTA physics test median score was 41 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
COLONIAL HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 15 Biology 8 Chemistry 3 Physics 1 General Science 3
Physical Science 0 Earth Science 0 Teaching two different science subjects 0

Rank 3 3 , 20 % Rank 2 12 , 80 % Rank 1 or 1A 0 , 0

Average Years Teaching Experience 14 First Year Teachers 2
Took at least 1 college science course in prior 5 years 8 53 %
Took a science methods course at some time 14 , 93 %
Teaching One or More Classes Out-Of-Field (OOF) 2 , 13 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 2574 % Minority 14 Science Unduplicated 1958, 76 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	2136	83	74	29	10	14	306	14
Biology	1195	46	42	28	0	0	0	0
Chemistry	360	14	12	30	0	0	0	0
Physics	117	5	5	23	0	0	0	0
Gen. Sci.	464	18	15	31	10	67	306	66
Phy. Sci.	0	0	0	0	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 0

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 36 AAPT/NSTA Physics Median 27

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Advanced classes, especially chemistry
2 Unified department
3 Interested, cooperative teachers
4 Providing for advanced, average, & basic students
5 Building physics

Needs (most frequently mentioned)

1 Improve performance of some teachers
2 More help for basic students, new students
3 More supervision
4 Better equipment, more equipment
5 Health course to emphasize nutrition, cleanliness, CPR

Highest Rated Questionnaire Items (teachers)

1 Teacher preparation
2 Teacher satisfaction
3 Textbooks
4 Objectives awareness
5 Class discipline
6 Lab discipline
7 On task in lab
8 Textbook selection

Lowest Rated Questionnaire Items (teachers)

1 Planning time
2 Availability of computers
3 Computer use
4 District tests
5 Extending program to community
6 Coordination between schools
7 Inservice
8 Teacher selection

5/TD
COLONIAL
6/6/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
COLONIAL HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.33	12.0
07	Laboratories	3.33	31.5
08	Equipment	2.67	44.0
09	Supplies	3.33	31.5
10	Safety Knowledge	4.00	20.0
11	Textbooks	4.67	5.5
12	Manuals	4.00	20.0
13	Resources	3.00	38.0
14	Media	3.00	38.0
15	Avail Computers	1.67	54.0
16	Computer Use	1.67	54.0
17	Community in Class	2.67	44.0
18	Extend Prog to Comm	2.00	50.5
19	Parents aware	2.67	44.0
23	Career Opportunities	4.00	20.0
24	Prep for Future in Sci	4.33	12.0
25	Selecting Sci Courses	4.00	20.0
26	Objectives Awareness	4.67	5.5
27	Coor Between Schools	2.00	50.5
28	Coor with Math	2.33	47.5
29	Coor with Feeders	2.67	44.0
30	Lesson Plans and Inst	4.33	12.0
35	Homework	4.33	12.0
36	Manage Labs	4.00	20.0
37	Class Discipline	4.67	5.5
38	Lab Discipline	4.67	5.5
39	Involve in Clubs	3.00	38.0
40	Class Size	3.33	31.5
41	Lab Class Size	3.00	38.0
42	Library Research	3.00	38.0
43	Lab Skills	3.67	26.0
44	Textbook Skills	4.00	20.0
45	Student Enthusiasm	3.67	26.0
46	On Task in Class	4.33	12.0
47	On Task in Lab	4.67	5.5
48	Teacher Tests and Plans	4.33	12.0
49	Teach Tests and Advice	4.33	12.0
50	Required Reading	3.00	38.0
51	District Tests	1.67	54.0
52	Essay Questions	2.67	44.0
53	Graphs on Tests	3.00	38.0
54	Process Skills on Tests	4.00	20.0
55	Reporting Progress	3.33	31.5
60	Inservice	2.00	50.5
61	Chairperson	3.50	28.0
62	Science Coordinator	3.33	31.5
63	Teacher Preparation	5.00	1.5
64	Admin Support	3.33	31.5
65	Teacher Satisfaction	5.00	1.5
66	Teacher Selection	2.00	50.5
67	Textbook Selection	4.67	5.5
68	Library Acquisitions	4.00	20.0
69	Involve With Guidance	3.67	26.0
70	Planning Time	1.00	56.0
71	Developing Budget	2.33	47.5
72	Using Funds	4.00	20.0

S/TD
COLONIAL/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
COLONIAL HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
63	Teacher Preparation	5.00	1.5
65	Teacher Satisfaction	5.00	1.5
11	Textbooks	4.67	5.5
26	Objectives Awareness	4.67	5.5
37	Class Discipline	4.67	5.5
38	Lab Discipline	4.67	5.5
47	On Task in Lab	4.67	5.5
67	Textbook Selection	4.67	5.5
06	Classrooms	4.33	12.0
35	Homework	4.33	12.0
46	On Task in Class	4.33	12.0
30	Lesson Plans and Inst	4.33	12.0
24	Prep for Future in Sci	4.33	12.0
49	Teach Tests and Advice	4.33	12.0
48	Teacher Tests and Plans	4.33	12.0
54	Process Skills on Tests	4.00	20.0
25	Selecting Sci Courses	4.00	20.0
10	Safety Knowledge	4.00	20.0
12	Manuals	4.00	20.0
23	Career Opportunities	4.00	20.0
36	Manage Labs	4.00	20.0
44	Textbook Skills	4.00	20.0
68	Library Acquisitions	4.00	20.0
72	Using Funds	4.00	20.0
43	Lab Skills	3.67	26.0
45	Student Enthusiasm	3.67	26.0
69	Involve With Guidance	3.67	26.0
61	Chairperson	3.50	28.0
07	Laboratories	3.33	31.5
09	Supplies	3.33	31.5
40	Class Size	3.33	31.5
62	Science Coordinator	3.33	31.5
64	Admin Support	3.33	31.5
55	Reporting Progress	3.33	31.5
13	Resources	3.00	38.0
14	Media	3.00	38.0
39	Involve in Clubs	3.00	38.0
41	Lab Class Size	3.00	38.0
42	Library Research	3.00	38.0
50	Required Reading	3.00	38.0
53	Graphs on Tests	3.00	38.0
08	Equipment	2.67	44.0
17	Community in Class	2.67	44.0
19	Parents aware	2.67	44.0
29	Coor with Feeders	2.67	44.0
52	Essay Questions	2.67	44.0
28	Coor with Math	2.33	47.5
71	Developing Budget	2.33	47.5
18	Extend Prog to Comm	2.00	50.5
27	Coor Between Schools	2.00	50.5
60	Inservice	2.00	50.5
66	Teacher Selection	2.00	50.5
15	Avail Computers	1.67	54.0
16	Computer Use	1.67	54.0
51	District Tests	1.67	54.0
70	Planning Time	1.00	56.0

5/TD
COLONIAL/R
1/25/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
COLONIAL HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	0	67	33
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	33	67	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	33	67	0
58	Should common school-level exams for each subject be administered?	33	67	0
59	Should common district-level exams be administered?	67	33	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	18
83	Discussion, all students have some opportunity to talk.	12
84	Recitation, students respond to teacher questions or assignments.	11
85	Demonstrations, teachers or students use concrete materials to illustrate points.	2
86	Laboratory, students work individually or in pairs.	17
87	Films, filmstrips, TV.	5
88	Field trips.	0
89	Tests.	7
90	Deskwork, workbooks, and reading assignments.	21
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	6
93	Reports from students.	0
94	Other, please specify.	2

COLONIAL HIGH SCHOOL
NOTEWORTHY POINTS

1. Advanced classes in chemistry and biology, a unified department, cooperative teachers, providing for the needs of students, and building the physics program were mentioned by the principal and teachers interviewed as strengths of the science program.

2. The chemistry program was considered to be exemplary.

3. Improving the performance of some teachers, providing more help to basic students, more supervision, better and more equipment for some classes, and a course which emphasizes nutrition, cleanliness, and health were mentioned as aspects of the science program which need strengthening.

4. Of the fifteen teachers who taught science, 80% held a Rank 2 or higher certificate compared to 55% for the combined group of high school science teachers.

5. Average teaching experience of science teachers was 14 years compared to 12 for the combined group of high school science teachers.

6. Average class size in science was 29 compared to 27 for the combined group of high schools.

7. Planning time ranked lowest among 56 items rated by teachers.

8. Teachers rated their preparation and satisfaction with their teaching assignments highest among 56 items rated. Also rated high were textbooks, making objectives clear to students, and managing classes in an orderly and efficient manner.

9. Teachers indicated that 17% of class time was devoted to laboratory work where students work individually or in pairs. This compared to 22% for the combined group.

10. The ACS/NSTA chemistry test median score for first year chemistry students was 36 compared to 35 for the district.

11. The AAPT/NSTA physics test median score was 27 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
EDGEWATER HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 9 Biology 5 Chemistry 2 Physics 1 General Science 2
Physical Science 1 Earth Science 0 Teaching two different science subjects 2

Rank 3 2, 22 % Rank 2 7, 78 % Rank 1 or 1A 0, 0

Average Years Teaching Experience 10 First Year Teachers 3
Took at least 1 college science course in prior 5 years 6, 67 %
Took a science methods course at some time 7, 78 %
Teaching One or More Classes Out-Of-Field (OOF) 2, 22 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 1475 % Minority 33 Science Unduplicated 1150, 78 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1183	80	45	26	8	18	234	20
Biology	722	49	27	27	5	19	157	22
Chemistry	174	12	7	25	0	0	0	0
Physics	65	4	3	22	0	0	0	0
Gen. Sci.	222	15	8	28	3	38	77	35
Phy. Sci.	0	0	0	0	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 0

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 37 AAPT/NSTA Physics Median 35

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Capable and cooperative faculty
2 Meets needs of individual students
3 Good teaching environment
4 Well equipped labs
5 Good courses in biology, chem, physics
6 Interested community

Needs (most frequently mentioned)

1 Modernize facilities and labs (new bldg)
2 Provide rooms for floating teachers
3 Preparation time, prep room
4 Strengthen general and physical sciences
5 Stress career education
6 Offer advanced placement

Highest Rated Questionnaire Items (teachers)

1 Homework
2 Managing labs
3 Lab discipline
4 Safety knowledge
5 Objectives awareness
6 Lesson plans and instruction
7 Class discipline
8 Teacher satisfaction
9 Library acquisitions

Lowest Rated Questionnaire Items (teachers)

1 Availability of computers
2 Computer use
3 District test use
4 Coordination with feeder schools
5 Teacher selection
6 Developing budget

5/TD
EDGEWATER
6/6/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EDGEWATER HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	2.67	40.0
07	Laboratories	2.67	40.0
08	Equipment	4.00	20.0
09	Supplies	3.33	31.0
10	Safety Knowledge	4.67	6.5
11	Textbooks	3.67	26.5
12	Manuals	4.50	10.0
13	Resources	4.00	20.0
14	Media	2.67	40.0
15	Avail Computers	1.00	55.0
16	Computer Use	1.00	55.0
17	Community in Class	2.33	46.0
18	Extend Prog to Comm	2.33	46.0
19	Parents aware	3.67	26.5
23	Career Opportunities	3.67	26.5
24	Prep for Future in Sci	4.00	20.0
25	Selecting Sci Courses	3.67	26.5
26	Objectives Awareness	4.67	6.5
27	Coor Between Schools	2.67	40.0
28	Coor with Math	2.67	40.0
29	Coor with Feeders	1.50	53.0
30	Lesson Plans and Inst	4.67	6.5
35	Homework	5.00	2.0
36	Manage Labs	5.00	2.0
37	Class Discipline	4.67	6.5
38	Lab Discipline	5.00	2.0
39	Involve in Clubs	2.00	49.5
40	Class Size	3.00	34.0
41	Lab Class Size	2.67	40.0
42	Library Research	2.33	46.0
43	Lab Skills	3.00	34.0
44	Textbook Skills	3.00	34.0
45	Student Enthusiasm	3.00	34.0
46	On Task in Class	4.33	14.0
47	On Task in Lab	4.33	14.0
48	Teacher Tests and Plans	4.33	14.0
49	Teach Tests and Advice	3.67	26.5
50	Required Reading	2.33	46.0
51	District Tests	1.00	55.0
52	Essay Questions	4.33	14.0
53	Graphs on Tests	4.00	20.0
54	Process Skills on Tests	4.00	20.0
55	Reporting Progress	2.67	40.0
60	Inservice	3.67	26.5
61	Chairperson	3.00	34.0
62	Science Coordinator	4.33	14.0
63	Teacher Preparation	4.33	14.0
64	Admin Support	3.67	26.5
65	Teacher Satisfaction	4.67	6.5
66	Teacher Selection	1.67	51.5
67	Textbook Selection	4.33	14.0
68	Library Acquisitions	4.67	6.5
69	Involve With Guidance	2.00	49.5
70	Planning Time	2.33	46.0
71	Developing Budget	1.67	51.5
72	Using Funds	3.67	26.5

5/TD
EDGEWATER/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EDGEWATER HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
35	Homework	5.00	2.0
36	Manage Labs	5.00	2.0
38	Lab Discipline	5.00	2.0
10	Safety Knowledge	4.67	6.5
26	Objectives Awareness	4.67	6.5
37	Class Discipline	4.67	6.5
65	Teacher Satisfaction	4.67	6.5
68	Library Acquisitions	4.67	6.5
30	Lesson Plans and Inst	4.67	6.5
12	Manuals	4.50	13.0
46	On Task in Class	4.33	14.0
47	On Task in Lab	4.33	14.0
52	Essay Questions	4.33	14.0
62	Science Coordinator	4.33	14.0
63	Teacher Preparation	4.33	14.0
67	Textbook Selection	4.33	14.0
48	Teacher Tests and Plans	4.33	14.0
54	Process Skills on Tests	4.00	20.0
08	Equipment	4.00	20.0
13	Resources	4.00	20.0
53	Graphs on Tests	4.00	20.0
24	Prep for Future in Sci	4.00	20.0
11	Textbooks	3.67	26.5
19	Parents aware	3.67	26.5
23	Career Opportunities	3.67	26.5
60	Inservice	3.67	26.5
64	Admin Support	3.67	26.5
72	Using Funds	3.67	26.5
25	Selecting Sci Courses	3.67	26.5
49	Teach Tests and Advice	3.67	26.5
09	Supplies	3.33	31.0
40	Class Size	3.00	34.0
43	Lab Skills	3.00	34.0
44	Textbook Skills	3.00	34.0
45	Student Enthusiasm	3.00	34.0
61	Chairperson	3.00	34.0
06	Classrooms	2.67	40.0
07	Laboratories	2.67	40.0
14	Media	2.67	40.0
27	Coor Between Schools	2.67	40.0
28	Coor with Math	2.67	40.0
41	Lab Class Size	2.67	40.0
55	Reporting Progress	2.67	40.0
17	Community in Class	2.33	46.0
18	Extend Prog to Comm	2.33	46.0
42	Library Research	2.33	46.0
50	Required Reading	2.33	46.0
70	Planning Time	2.33	46.0
69	Involve With Guidance	2.00	49.5
39	Involve in Clubs	2.00	49.5
66	Teacher Selection	1.67	51.5
71	Developing Budget	1.67	51.5
29	Coor with Feeders	1.50	53.0
15	Avail Computers	1.00	55.0
16	Computer Use	1.00	55.0
51	District Tests	1.00	55.0

S/TD
EDGEWATER/S
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EDGEWATER HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	33	67	0
22	Does science get a fair share of available funds at this school?	100	0	0
31	Are there established procedures for monitoring lesson plans?	33	67	0
32	Do you think that a science program for the gifted should be provided at your school?	33	67	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	67	33	0
58	Should common school-level exams for each subject be administered?	100	0	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	29
83	Discussion, all students have some opportunity to talk.	24
84	Recitation, students respond to teacher questions or assignments.	7
85	Demonstrations, teachers or students use concrete materials to illustrate points.	6
86	Laboratory, students work individually or in pairs.	17
87	Films, filmstrips, TV.	3
88	Field trips.	1
89	Tests.	7
90	Deskwork, workbooks, and reading assignments.	2
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	4
93	Reports from students.	1
94	Other, please specify.	0

EDGEWATER HIGH SCHOOL
NOTEWORTHY POINTS

1. The capable and cooperative faculty, meeting needs of individual students, a good teaching environment, well equipped labs, good courses in biology, chemistry, and physics, and an interested community were mentioned by the principal and teachers interviewed as strengths of the science program.

2. Modernizing science facilities and labs, providing rooms for floating teachers, providing preparation time and a preparation room for labs, strengthening general and physical science, stressing career education, and offering advanced placement courses were mentioned as aspects of the science program in need of strengthening.

3. Of the nine teachers who taught science, 78% held a Rank 2 or higher certificate compared to 55% for the combined group of high school science teachers.

4. Average years teaching experience of science teachers was 10 compared to 12 for the combined group of high school science teachers.

5. The Chemistry II program was considered to be exemplary.

6. Teachers gave high ratings to homework, managing labs, lab discipline, safety knowledge, helping students to become aware of objectives, lesson plans and instruction, class discipline, teacher satisfaction with teaching assignments, and library acquisitions.

7. Teachers gave low ratings to availability of computers, computer use, district test use, coordination with feeder schools, teacher selection, and involvement with development of the budget.

8. Teachers indicated that 17% of class time was devoted to lab experiences where students worked individually or in pairs. This compared to 22% for the combined group.

9. The science department chairperson taught no science courses during the 1983-84 school year.

10. The ACS/NSTA chemistry test median score for first year chemistry students was 37 compared to 35 for the district.

11. The AAPT/NSTA physics test median score was 35 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
EVANS HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 14 Biology 10 Chemistry 1 Physics 1 General Science 0
Physical Science 2 Earth Science 3 Teaching two different science subjects 3

Rank 3 3, 21 % Rank 2 9, 64 % Rank 1 or 1A 2, 14

Average Years Teaching Experience 12 First Year Teachers 0
Took at least 1 college science course in prior 5 years 9, 64 %
Took a science methods course at some time 12, 88 %
Teaching One or More Classes Out-Of-Field (OOF) 2, 14 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 2217 % Minority 42 Science Unduplicated 1645, 74 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1699	77	69	25	10	14	239	14
Biology	928	42	38	24	10	26	239	26
Chemistry	288	13	12	24	0	0	0	0
Physics	55	2	3	18	0	0	0	0
Gen. Sci.	0	0	0	0	0	0	0	0
Phy. Sci.	226	10	8	28	0	0	0	0
Earth Sci	202	9	8	25	0	0	0	0

Advanced Placement Biology 23 Advanced Placement Chemistry 0

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 34 AAPT/NSTA Physics Median 36

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Excellent teachers
2 Good selection of courses
3 Enthusiastic chairperson

Needs (most frequently mentioned)

1 Facilities, equipment, supplies
2 More planning time
3 More classes for basic students

Highest Rated Questionnaire Items (teachers)

1 Class size
2 Lab class size
3 Using funds
4 Career opportunities
5 Student enthusiasm
6 Chairperson
7 Developing budget
8 Preparation for future

Lowest Rated Questionnaire Items (teachers)

1 Use of district tests
2 Computer use
3 Availability of computers
4 Involvement with guidance
5 Reporting progress
6 Required reading
7 Library research
8 Media

5/TD
EVANS
6/6/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EVANS HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.00	33.0
07	Laboratories	3.50	19.0
08	Equipment	2.75	41.0
09	Supplies	3.25	26.5
10	Safety Knowledge	3.50	19.0
11	Textbooks	3.75	11.0
12	Manuals	3.67	14.0
13	Resources	3.00	33.0
14	Media	2.25	51.0
15	Avail Computers	2.00	55.0
16	Computer Use	2.00	55.0
17	Community in Class	2.75	41.0
18	Extend Prog to Comm	3.75	11.0
19	Parents aware	2.75	41.0
23	Career Opportunities	4.00	6.0
24	Prep for Future in Sci	4.00	6.0
25	Selecting Sci Courses	3.50	19.0
26	Objectives Awareness	3.50	19.0
27	Coor Between Schools	3.00	33.0
28	Coor with Math	2.75	41.0
29	Coor with Feeders	3.00	33.0
30	Lesson Plans and Inst	3.50	19.0
35	Homework	2.75	41.0
36	Manage Labs	3.00	33.0
37	Class Discipline	3.50	19.0
38	Lab Discipline	3.25	26.5
39	Involve in Clubs	3.75	11.0
40	Class Size	4.50	1.0
41	Lab Class Size	4.25	2.5
42	Library Research	2.25	51.0
43	Lab Skills	2.50	47.0
44	Textbook Skills	3.50	19.0
45	Student Enthusiasm	4.00	6.0
46	On Task in Class	3.50	19.0
47	On Task in Lab	3.25	26.5
48	Teacher Tests and Plans	3.25	26.5
49	Teach Tests and Advice	3.00	33.0
50	Required Reading	2.25	51.0
51	District Tests	2.00	55.0
52	Essay Questions	2.50	47.0
53	Graphs on Tests	2.75	41.0
54	Process Skills on Tests	2.75	41.0
55	Reporting Progress	2.25	51.0
60	Inservice	3.25	26.5
61	Chairperson	4.00	6.0
62	Science Coordinator	3.75	11.0
63	Teacher Preparation	3.50	19.0
64	Admin Support	2.50	47.0
65	Teacher Satisfaction	3.75	11.0
66	Teacher Selection	3.00	33.0
67	Textbook Selection	3.25	26.5
68	Library Acquisitions	2.75	41.0
69	Involve With Guidance	2.25	51.0
70	Planning Time	2.75	41.0
71	Developing Budget	4.00	6.0
72	Using Funds	4.25	2.5

5/TD
EVANS/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EVANS HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
40	Class Size	4.50	1.0
41	Lab Class Size	4.25	2.5
72	Using Funds	4.25	2.5
23	Career Opportunities	4.00	6.0
45	Student Enthusiasm	4.00	6.0
61	Chairperson	4.00	6.0
71	Developing Budget	4.00	6.0
24	Prep for Future in Sci	4.00	6.0
11	Textbooks	3.75	11.0
18	Extend Prog to Comm	3.75	11.0
39	Involve in Clubs	3.75	11.0
62	Science Coordinator	3.75	11.0
65	Teacher Satisfaction	3.75	11.0
12	Manuals	3.67	14.0
07	Laboratories	3.50	19.0
10	Safety Knowledge	3.50	19.0
26	Objectives Awareness	3.50	19.0
37	Class Discipline	3.50	19.0
44	Textbook Skills	3.50	19.0
46	On Task in Class	3.50	19.0
63	Teacher Preparation	3.50	19.0
30	Lesson Plans and Inst	3.50	19.0
25	Selecting Sci Courses	3.50	19.0
09	Supplies	3.25	26.5
38	Lab Discipline	3.25	26.5
47	On Task in Lab	3.25	26.5
60	Inservice	3.25	26.5
67	Textbook Selection	3.25	26.5
48	Teacher Tests and Plans	3.25	26.5
06	Classrooms	3.00	33.0
13	Resources	3.00	33.0
27	Coor Between Schools	3.00	33.0
29	Coor with Feeders	3.00	33.0
36	Manage Labs	3.00	33.0
66	Teacher Selection	3.00	33.0
49	Teach Tests and Advice	3.00	33.0
08	Equipment	2.75	41.0
17	Community in Class	2.75	41.0
19	Parents aware	2.75	41.0
28	Coor with Math	2.75	41.0
35	Homework	2.75	41.0
53	Graphs on Tests	2.75	41.0
68	Library Acquisitions	2.75	41.0
70	Planning Time	2.75	41.0
54	Process Skills on Tests	2.75	41.0
43	Lab Skills	2.50	47.0
52	Essay Questions	2.50	47.0
64	Admin Support	2.50	47.0
14	Media	2.25	51.0
42	Library Research	2.25	51.0
50	Required Reading	2.25	51.0
55	Reporting Progress	2.25	51.0
69	Involve with Guidance	2.25	51.0
15	Avail Computers	2.00	55.0
16	Computer Use	2.00	55.0
51	District Tests	2.00	55.0

5/TD
EVANS/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EVANS HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	75	25	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	25	25	50
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	75	25	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	25	75	0
58	Should common school-level exams for each subject be administered?	100	0	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	25
83	Discussion, all students have some opportunity to talk.	10
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	8
86	Laboratory, students work individually or in pairs.	14
87	Films, filmstrips, TV.	3
88	Field trips.	1
89	Tests.	11
90	Deskwork, workbooks, and reading assignments.	10
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	7
93	Reports from students.	2
94	Other, please specify.	1

5/TD
SR/SCI/QUE.4
4/2/84

EVANS HIGH SCHOOL
NOTEWORTHY POINTS

1. Teachers, selection of courses, and an enthusiastic chairperson were mentioned by the principal and teachers interviewed as strengths of the science program.

2. Facilities, equipment and supplies, more planning time, and more opportunities for basic students were mentioned as aspects of the science program in need of strengthening.

3. The marine biology program was considered to be exemplary.

4. One section of advanced placement biology was taught.

5. Of the fourteen teachers who taught science, 78% held a Rank 2 or higher certificate. This compared to the 55% for the combined group of high school science teachers.

6. Average class size in science was 25 compared to 27 for the combined high schools.

7. All teachers interviewed (100%) said that common school level exams in each subject should be administered.

8. All teachers interviewed (100%) said that common district level exams should be administered.

9. Teachers indicated that 14% of class time was devoted to lab experiences where students worked individually or in pairs. This compared to 21% for the combined group.

10. The ACS/NSTA chemistry test median score for first year chemistry students was 34 compared to 35 for the district.

11. The AAPT/NSTA physics test median score was 36 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
JONES HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 7 Biology 6 Chemistry 1 Physics 1 General Science 1
Physical Science 0 Earth Science 0 Teaching two different science subjects 2

Rank 3 4 , 57 % Rank 2 3 , 43 % Rank 1 or 1a 0 , 0

Average Years Teaching Experience 8 First Year Teachers 2
Took at least 1 college science course in prior 5 years 5 , 71 %
Took a science methods course at some time 5 , 71 %
Teaching One or More Classes Out-Of-Field (OOF) 2 29 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 849 % Minority 94 Science Unduplicated 706 , 83 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	716	84	32	22	9	28	136	19
Biology	486	57	23	21	8	35	121	25
Chemistry	73	9	3	24	0	0	0	0
Physics	17	2	1	15	1	100	15	88
Gen. Sci.	140	16	5	28	0	0	0	0
Phy. Sci.	0	0	0	0	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 0

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 31 AAPT/NSTA Physics Median 24

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Caring and cooperative teachers
2 Department chairperson
3 Opportunities for projects, activities
4 Assessing student abilities
5 Association with media center

Needs (most frequently mentioned)

1 Facilities equipment and supplies
2 Preparation time
3 Method of selecting students for classes
4 Teacher training
5 Matching textbooks, reading scores of students
6 Field trips
7 More communications among teachers

Highest Rated Questionnaire Items (teachers)

1 Chairperson
2 Safety knowledge
3 Objectives awareness
4 Homework
5 Science coordinat
6 Library acquisitions

Lowest Rated Questionnaire Items (teachers)

1 Availability of computers
2 Computer use
3 Coordination with feeder schools
4 District tests to plan programs
5 Teacher selection involvement
6 Involvement in budget development

5/TD
JONES
6/6/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JONES HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.25	11.0
07	Laboratories	2.75	41.0
08	Equipment	3.00	36.5
09	Supplies	3.25	31.5
10	Safety Knowledge	4.75	3.0
11	Textbooks	3.25	31.5
12	Manuals	3.67	24.0
13	Resources	2.75	41.0
14	Media	4.25	11.0
15	Avail Computers	1.00	53.5
16	Computer Use	1.00	53.5
17	Community in Class	2.00	47.5
18	Extend Prog to Comm	2.25	45.0
19	Parents aware	3.00	36.5
23	Career Opportunities	4.25	11.0
24	Prep for Future in Sci	3.50	27.0
25	Selecting Sci Courses	3.75	22.5
26	Objectives Awareness	4.75	3.0
27	Coor Between Schools	2.00	47.5
28	Coor with Math	2.33	43.0
29	Coor with Feeders	1.00	53.5
30	Lesson Plans and Inst	4.00	16.5
35	Homework	4.75	3.0
36	Manage Labs	3.50	27.0
37	Class Discipline	3.75	22.5
38	Lab Discipline	4.00	16.5
39	Involve in Clubs	2.25	45.0
40	Class Size	3.75	22.5
41	Lab Class Size	4.00	16.5
42	Library Research	4.00	16.5
43	Lab Skills	2.25	45.0
44	Textbook Skills	3.25	31.5
45	Student Enthusiasm	3.00	36.5
46	On Task in Class	3.50	27.0
47	On Task in Lab	3.50	27.0
48	Teacher Tests and Plans	4.50	7.0
49	Teach Tests and Advice	4.00	16.5
50	Required Reading	2.00	47.5
51	District Tests	1.00	53.5
52	Essay Questions	2.75	41.0
53	Graphs on Tests	3.00	36.5
54	Process Skills on Tests	3.50	27.0
55	Reporting Progress	3.25	31.5
60	Inservice	3.00	36.5
61	Chairperson	5.00	1.0
62	Science Coordinator	4.67	5.5
63	Teacher Preparation	4.25	11.0
64	Admin Support	4.25	11.0
65	Teacher Satisfaction	4.00	16.5
66	Teacher Selection	1.00	53.5
67	Textbook Selection	4.33	8.0
68	Library Acquisitions	4.67	5.5
69	Involve With Guidance	3.00	36.5
70	Planning Time	2.00	47.5
71	Developing Budget	1.00	53.5
72	Using Funds	3.75	22.5

5/TD
JONES/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JONES HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
61	Chairperson	5.00	1.0
10	Safety Knowledge	4.75	3.0
26	Objectives Awareness	4.75	3.0
35	Homework	4.75	3.0
62	Science Coordinator	4.67	5.5
68	Library Acquisitions	4.67	5.5
48	Teacher Tests and Plans	4.50	7.0
67	Textbook Selection	4.33	8.0
06	Classrooms	4.25	11.0
14	Media	4.25	11.0
23	Career Opportunities	4.25	11.0
63	Teacher Preparation	4.25	11.0
64	Admin Support	4.25	11.0
30	Lesson Plans and Inst	4.00	16.5
38	Lab Discipline	4.00	16.5
41	Lab Class Size	4.00	16.5
42	Library Research	4.00	16.5
49	Teach Tests and Advice	4.00	16.5
65	Teacher Satisfaction	4.00	16.5
25	Selecting Sci Courses	3.75	22.5
37	Class Discipline	3.75	22.5
40	Class Size	3.75	22.5
72	Using Funds	3.75	22.5
12	Manuals	3.67	24.0
24	Prep for Future in Sci	3.50	27.0
36	Manage Labs	3.50	27.0
46	On Task in Class	3.50	27.0
47	On Task in Lab	3.50	27.0
54	Process Skills on Tests	3.50	27.0
09	Supplies	3.25	31.5
11	Textbooks	3.25	31.5
44	Textbook Skills	3.25	31.5
55	Reporting Progress	3.25	31.5
08	Equipment	3.00	36.5
19	Parents aware	3.00	36.5
45	Student Enthusiasm	3.00	36.5
53	Graphs on Tests	3.00	36.5
60	Inservice	3.00	36.5
69	Involve With Guidance	3.00	36.5
07	Laboratories	2.75	41.0
13	Resources	2.75	41.0
52	Essay Questions	2.75	41.0
28	Coor with Math	2.33	43.0
18	Extend Prog to Comm	2.25	45.0
39	Involve in Clubs	2.25	45.0
43	Lab Skills	2.25	45.0
17	Community in Class	2.00	47.5
27	Coor Between Schools	2.00	47.5
50	Required Reading	2.00	47.5
70	Planning Time	2.00	47.5
15	Avail Computers	1.00	53.5
16	Computer Use	1.00	53.5
29	Coor with Feeders	1.00	53.5
51	District Tests	1.00	53.5
66	Teacher Selection	1.00	53.5
71	Developing Budget	1.00	53.5

S/TD
JONES/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
JONES HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	75	25	0
21	Have you completed a safety training course?	25	75	0
22	Does science get a fair share of available funds at this school?	50	0	50
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	50	25	25
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	75	0	25
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	25	75	0
58	Should common school-level exams for each subject be administered?	75	0	25
59	Should common district-level exams be administered?	75	25	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	24
83	Discussion, all students have some opportunity to talk.	15
84	Recitation, students respond to teacher questions or assignments.	9
85	Demonstrations, teachers or students use concrete materials to illustrate points.	3
86	Laboratory, students work individually or in pairs.	15
87	Films, filmstrips, TV.	4
88	Field trips.	1
89	Tests.	11
90	Deskwork, workbooks, and reading assignments.	9
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	7
93	Reports from students.	3
94	Other, please specify.	1

JONES HIGH SCHOOL
NOTEWORTHY POINTS

1. Teachers, the department chairperson, opportunities for doing projects, assessment of student activities, and cooperative work with the media center were mentioned by the principal and teachers interviewed as strengths of the science program.

2. Facilities, equipment and supplies, preparation time, the method of selecting students for classes, teacher training, matching textbooks with reading scores of students, field trips, and communication among teachers were mentioned as aspects of the science program in need of strengthening.

3. Of the seven teachers who taught science, 43% held a Rank 2 or higher certificate compared to 55% for the combined group of high school science teachers.

4. In the five years prior to the 1983-84 school year, 71% of the science teachers completed a college level science content course compared to 57% for the combined group of high school science teachers.

5. Average teaching experience was 8 years compared to 12 for the combined group.

6. Average class size was 22 compared to 27 for the combined group of high schools.

7. Many provisions such as DRP's (Degrees of Reading Power) glossaries, structured experiments, and graphs were used to help meet the needs of students.

8. Teachers indicated that 15% of class time was devoted to lab experiences where students worked individually or in pairs. This compared to 22% for the combined group.

9. The ACS/NSTA chemistry test median score for first year chemistry students was 31 compared to 35 for the district.

10. The AAPT/NSTA physics test was 24 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
OAK RIDGE HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 14 Biology 9 Chemistry 3 Physics 1 General Science 3
Physical Science 0 Earth Science 0 Teaching two different science subjects 2

Rank 3 5, 36 % Rank 2 9, 64 % Rank 1 or 1A 0, 0

Average Years Teaching Experience 15 First Year Teachers 0
Took at least 1 college science course in prior 5 years 11, 73 %
Took a science methods course at some time 14, 93 %
Teaching One or More Classes Out-Of-Field (OOF) 1, 7 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 2292 % Minority 27 Science Unduplicated 1808, 79 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1919	84	72	27	4	6	62	3
Biology	1139	50	44	26	4	9	62	5
Chemistry	394	17	13	30	0	0	0	0
Physics	100	4	4	25	0	0	0	0
Gen. Sci.	285	12	11	26	0	0	0	0
Phy. Sci.	0	0	0	0	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 0

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 36 AAPT/NSTA Physics Median 43

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Good teachers
2 Diversity of programs
3 Laboratory experiences
4 Strong chairperson
5 Needs and interests of students are served

Needs (most frequently mentioned)

1 Facilities, equipment, and materials
2 More preparation time
3 Help for students to think scientifically
4 Science workshop
5 Greater lab orientation
6 More electives

Highest Rated Questionnaire Items (teachers)

1 Management of labs
2 Class discipline
3 Lab discipline
4 Teacher satisfaction
5 Laboratories
6 Safety knowledge
7 Objectives awareness
8 Teacher preparation
9 Process skills on tests

Lowest Rated Questionnaire Items (teachers)

1 Availability of computers
2 Computer use
3 Use of district tests to plan instruction
4 Involvement in teacher selection
5 Involvement in budget development

5/TD
OAK/RIDGE
6/6/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
OAK RIDGE HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.50	29.0
07	Laboratories	4.75	7.0
08	Equipment	2.00	46.0
09	Supplies	2.50	40.0
10	Safety Knowledge	4.75	7.0
11	Textbooks	3.50	29.0
12	Manuals	4.50	13.5
13	Resources	2.50	40.0
14	Media	2.75	37.0
15	Avail Computers	1.00	54.0
16	Computer Use	1.00	54.0
17	Community in Class	3.25	31.0
18	Extend Prog to Comm	3.00	33.5
19	Parents aware	1.75	48.0
23	Career Opportunities	4.50	13.5
24	Prep for Future in Sci	3.75	24.0
25	Selecting Sci Courses	4.33	16.0
26	Objectives Awareness	4.75	7.0
27	Coor Between Schools	2.00	46.0
28	Coor with Math	1.50	49.0
29	Coor with Feeders	1.25	50.5
30	Lesson Plans and Inst	4.50	13.5
35	Homework	4.25	18.5
36	Manage Labs	5.00	2.5
37	Class Discipline	5.00	2.5
38	Lab Discipline	5.00	2.5
39	Involve in Clubs	3.75	24.0
40	Class Size	2.75	37.0
41	Lab Class Size	2.25	43.0
42	Library Research	2.75	37.0
43	Lab Skills	3.50	29.0
44	Textbook Skills	3.75	24.0
45	Student Enthusiasm	3.00	33.5
46	On Task in Class	4.25	18.5
47	On Task in Lab	4.50	13.5
48	Teacher Tests and Plans	3.75	24.0
49	Teach Tests and Advice	3.75	24.0
50	Required Reading	2.25	43.0
51	District Tests	1.00	54.0
52	Essay Questions	3.00	33.5
53	Graphs on Tests	4.25	18.5
54	Process Skills on Tests	4.75	7.0
55	Reporting Progress	2.50	40.0
60	Inservice	2.25	43.0
61	Chairperson	4.67	10.5
62	Science Coordinator	3.00	33.5
63	Teacher Preparation	4.75	7.0
64	Admin Support	4.00	21.0
65	Teacher Satisfaction	5.00	2.5
66	Teacher Selection	1.00	54.0
67	Textbook Selection	3.67	27.0
68	Library Acquisitions	4.67	10.5
69	Involve With Guidance	2.00	46.0
70	Planning Time	1.25	50.5
71	Developing Budget	1.00	54.0
72	Using Funds	4.25	18.5

S/TD
OAK/RIDGE/I
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
OAK RIDGE HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
36	Manage Labs	5.00	2.5
37	Class Discipline	5.00	2.5
38	Lab Discipline	5.00	2.5
65	Teacher Satisfaction	5.00	2.5
07	Laboratories	4.75	7.0
10	Safety Knowledge	4.75	7.0
26	Objectives Awareness	4.75	7.0
63	Teacher Preparation	4.75	7.0
54	Process Skills on Tests	4.75	7.0
61	Chairperson	4.67	10.5
68	Library Acquisitions	4.67	10.5
12	Manuals	4.50	13.5
23	Career Opportunities	4.50	13.5
47	On Task in Lab	4.50	13.5
30	Lesson Plans and Inst	4.50	13.5
25	Selecting Sci Courses	4.33	16.0
35	Homework	4.25	18.5
46	On Task in Class	4.25	18.5
53	Graphs on Tests	4.25	18.5
72	Using Funds	4.25	18.5
64	Admin Support	4.00	21.0
39	Involve in Clubs	3.75	24.0
44	Textbook Skills	3.75	24.0
24	Prep for Future in Sci	3.75	24.0
49	Teach Tests and Advice	3.75	24.0
48	Teacher Tests and Plans	3.75	24.0
67	Textbook Selection	3.67	27.0
06	Classrooms	3.50	29.0
11	Textbooks	3.50	29.0
43	Lab Skills	3.50	29.0
17	Community in Class	3.25	31.0
18	Extend Prog to Comm	3.00	33.5
45	Student Enthusiasm	3.00	33.5
52	Essay Questions	3.00	33.5
62	Science Coordinator	3.00	33.5
14	Media	2.75	37.0
40	Class Size	2.75	37.0
42	Library Research	2.75	37.0
09	Supplies	2.50	40.0
13	Resources	2.50	40.0
55	Reporting Progress	2.50	40.0
41	Lab Class Size	2.25	43.0
50	Required Reading	2.25	43.0
60	Inservice	2.25	43.0
08	Equipment	2.00	46.0
27	Coor Between Schools	2.00	46.0
69	Involve With Guidance	2.00	46.0
19	Parents aware	1.75	48.0
28	Coor with Math	1.50	49.0
29	Coor with Feeders	1.25	50.5
70	Planning Time	1.25	50.5
15	Avail Computers	1.00	54.0
16	Computer Use	1.00	54.0
51	District Tests	1.00	54.0
66	Teacher Selection	1.00	54.0
71	Developing Budget	1.00	54.0

S/TD
OAK/RIDGE/R
4/ /84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
OAK RIDGE HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	0	0	0
22	Does science get a fair share of available funds at this school?	0	75	25
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	100	0	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	75	0	25
34	Do you deal with curriculum scope and sequence in your planning?	75	25	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	0	50	50
58	Should common school-level exams for each subject be administered?	100	0	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	20
83	Discussion, all students have some opportunity to talk.	6
84	Recitation, students respond to teacher questions or assignments.	5
85	Demonstrations, teachers or students use concrete materials to illustrate points.	6
86	Laboratory, students work individually or in pairs.	40
87	Films, filmstrips, TV.	3
88	Field trips.	1
89	Tests.	5
90	Deskwork, workbooks, and reading assignments.	6
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	5
93	Reports from students.	2
94	Other, please specify.	0

OAK RIDGE HIGH SCHOOL
NOTEWORTHY POINTS

1. Teachers, the diversity of programs, laboratory experiences, the department chairperson, and serving needs and interests of students were mentioned by the principal and teachers interviewed as strengths of the science program.

2. Facilities, equipment and materials, preparation time, helping students to think scientifically, science inservice, greater lab orientation, and more electives were mentioned as aspects of the science program in need of strengthening.

3. Of the fourteen teachers who taught science, 64% held a Rank 2 or higher certificate compared to 55% for the combined group of high school science teachers.

4. Average teaching experience was 15 years compared to 12 for the combined group.

5. In the five years prior to the 1983-84 school year, 73% of the science teachers completed at least one college level science content course compared to 57% for the combined group.

6. None of the teachers felt that science got a fair share of available funds at the school.

7. All teachers interviewed (100%) said that common school level exams for each subject should be administered.

8. All teachers interviewed (100%) said that common district level exams should be administered.

9. Teachers indicated that 40% of class time was devoted to laboratory experiences where students worked individually or in pairs. This compared to 22% for the combined group.

10. The ACS/NSTA chemistry test median score for first year chemistry students was 36 compared to 35 for the district.

11. The AAPT/NSTA physics test median score was 43 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
WEST ORANGE HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 11 Biology 6 Chemistry 3 Physics 1 General Science 1
Physical Science 2 Earth Science 0 Teaching two different science subjects 2

Rank 3 8, 73 % Rank 2 3, 27 % Rank 1 or 1A 0, 0

Average Years Teaching Experience 10 First Year Teachers 2
Took at least 1 college science course in prior 5 years 6, 55 %
Took a science methods course at some time 8, 73 %
Teaching One or More Classes Out-Of-Field (OOF) 2, 18 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 2001 % Minority 26 Science Unduplicated 1513, 76 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1560	78	54	29	10	19	280	18
Biology	863	43	29	30	5	17	150	17
Chemistry	307	15	12	26	0	0	0	0
Physics	78	4	3	26	0	0	0	0
Gen. Sci.	130	6	5	26	5	100	130	100
Phy. Sci.	182	9	5	36	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 0

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 29 AAPT/NSTA Physics Median 28

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Positive, sharing and excited teachers
2 Diversity of subjects
3 Thinking skills
4 Group work in labs
5 Administrative support

Needs (most frequently mentioned)

1 Equipment, materials and supplies
2 Reduced class size for labs
3 More preparation and planning time
4 Qualified and certified teachers in some areas
5 Provide rooms for all science teachers
6 More involvement with community

Highest Rated Questionnaire Items (teachers)

1 Chairperson
2 Teacher satisfaction
3 Lesson plans and instruction
4 Managing labs
5 Lab discipline
6 Science coordinator

Lowest Rated Questionnaire Items (teachers)

1 Involvement in developing budget
2 Coordination with math
3 Availability of computers
4 Computer use
5 Use of district tests for program planning
6 Coordination with feeder schools

5/TD
WEST/ORANGE
6/6/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WEST ORANGE HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.67	24.5
07	Laboratories	3.00	36.0
08	Equipment	2.33	46.5
09	Supplies	2.67	41.5
10	Safety Knowledge	4.00	17.0
11	Textbooks	4.00	17.0
12	Manuals	4.00	17.0
13	Resources	2.67	41.5
14	Media	3.00	36.0
15	Avail Computers	1.33	54.0
16	Computer Use	1.33	54.0
17	Community in Class	3.00	36.0
18	Extend Prog to Comm	2.33	46.5
19	Parents aware	3.33	31.0
23	Career Opportunities	4.00	17.0
24	Prep for Future in Sci	3.33	31.0
25	Selecting Sci Courses	3.67	24.5
26	Objectives Awareness	4.33	10.0
27	Coor Between Schools	2.33	46.5
28	Coor with Math	1.33	54.0
29	Coor with Feeders	1.67	51.5
30	Lesson Plans and Inst	4.67	4.5
35	Homework	4.00	17.0
36	Manage Labs	4.67	4.5
37	Class Discipline	4.33	10.0
38	Lab Discipline	4.67	4.5
39	Involve in Clubs	2.67	41.5
40	Class Size	4.33	10.0
41	Lab Class Size	3.00	36.0
42	Library Research	2.33	46.5
43	Lab Skills	3.33	31.0
44	Textbook Skills	3.67	24.5
45	Student Enthusiasm	4.00	17.0
46	On Task in Class	4.00	17.0
47	On Task in Lab	4.33	10.0
48	Teacher Tests and Plans	3.67	24.5
49	Teach Tests and Advice	3.67	24.5
50	Required Reading	2.67	41.5
51	District Tests	1.67	51.5
52	Essay Questions	2.67	41.5
53	Graphs on Tests	3.67	24.5
54	Process Skills on Tests	4.33	10.0
55	Reporting Progress	3.67	24.5
60	Inservice	2.00	49.5
61	Chairperson	5.00	1.5
62	Science Coordinator	4.67	4.5
63	Teacher Preparation	4.33	10.0
64	Admin Support	4.33	10.0
65	Teacher Satisfaction	5.00	1.5
66	Teacher Selection	2.00	49.5
67	Textbook Selection	3.67	24.5
68	Library Acquisitions	3.00	36.0
69	Involve With Guidance	3.33	31.0
70	Planning Time	2.67	41.5
71	Developing Budget	1.00	56.0
72	Using Funds	3.33	31.0

S/TD
WEST/GR/I
4/5/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WEST ORANGE HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
61	Chairperson	5.00	1.5
65	Teacher Satisfaction	5.00	1.5
30	Lesson Plans and Inst	4.67	4.5
36	Manage Labs	4.67	4.5
38	Lab Discipline	4.67	4.5
62	Science Coordinator	4.67	4.5
26	Objectives Awareness	4.33	10.0
37	Class Discipline	4.33	10.0
40	Class Size	4.33	10.0
47	On Task in Lab	4.33	10.0
54	Process Skills on Tests	4.33	10.0
63	Teacher Preparation	4.33	10.0
64	Admin Support	4.33	10.0
10	Safety Knowledge	4.00	17.0
11	Textbooks	4.00	17.0
12	Manuals	4.00	17.0
23	Career Opportunities	4.00	17.0
35	Homework	4.00	17.0
45	Student Enthusiasm	4.00	17.0
46	On Task in Class	4.00	17.0
06	Classrooms	3.67	24.5
25	Selecting Sci Courses	3.67	24.5
44	Textbook Skills	3.67	24.5
48	Teacher Tests and Plans	3.67	24.5
49	Teach Tests and Advice	3.67	24.5
53	Graphs on Tests	3.67	24.5
55	Reporting Progress	3.67	24.5
67	Textbook Selection	3.67	24.5
19	Parents aware	3.33	31.0
24	Prep for Future in Sci	3.33	31.0
43	Lab Skills	3.33	31.0
69	Involve With Guidance	3.33	31.0
72	Using Funds	3.33	31.0
07	Labcratories	3.00	36.0
14	Media	3.00	36.0
17	Community in Class	3.00	36.0
41	Lab Class Size	3.00	36.0
68	Library Acquisitions	3.00	36.0
09	Supplies	2.67	41.5
13	Resources	2.67	41.5
39	Involve in Clubs	2.67	41.5
50	Required Reading	2.67	41.5
52	Essay Questions	2.67	41.5
70	Planning Time	2.67	41.5
08	Equipment	2.33	46.5
18	Extend Prog to Comm	2.33	46.5
27	Coor Between Schools	2.33	46.5
42	Library Research	2.33	46.5
60	Inservice	2.00	49.5
66	Teacher Selection	2.00	49.5
29	Coor with Feeders	1.67	51.5
51	District Tests	1.67	51.5
15	Avail Computers	1.33	54.0
16	Computer Use	1.33	54.0
28	Coor with Math	1.33	54.0
71	Developing Budget	1.00	56.0

5/TD
WEST/OR/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WEST ORANGE HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	67	33	0
22	Does science get a fair share of available funds at this school?	33	67	0
31	Are there established procedures for monitoring lesson plans?	100	0	0
32	Do you think that a science program for the gifted should be provided at your school?	67	33	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	33	67	0
58	Should common school-level exams for each subject be administered?	33	67	0
59	Should common district-level exams be administered?	33	67	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	13
83	Discussion, all students have some opportunity to talk.	15
84	Recitation, students respond to teacher questions or assignments.	5
85	Demonstrations, teachers or students use concrete materials to illustrate points.	2
86	Laboratory, students work individually or in pairs.	35
87	Films, filmstrips, TV.	3
88	Field trips.	0
89	Tests.	10
90	Deskwork, workbooks, and reading assignments.	5
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	10
93	Reports from students.	1
94	Other, please specify.	0

5/TD
SR/SCI/QUE.7
4/2/84

WEST ORANGE HIGH SCHOOL
NOTEWORTHY POINTS

1. Teachers, the diversity of subjects offered, thinking skills, group work in labs, and administrative support were mentioned by the principal and teachers as strengths of the science program.

2. Equipment, materials and supplies, class size, preparation and planning time, qualifying and certifying teachers, providing rooms for all science teachers, and community involvement were mentioned as aspects of the science program in need of strengthening.

3. Of the eleven teachers who taught science, 27% held a Rank 2 or higher certificate compared to 55% for the combined group of high school science teachers.

4. Average teaching experience was 10 years compared to 12 for the combined group of high school science teachers.

5. Average class size was 29 compared to 27 for the combined group.

6. Teachers gave high ratings to the department chairperson, satisfaction with their teaching assignments, lesson plans, managing labs, lab discipline, and the science coordinator.

7. Teachers gave low ratings to involvement in developing the budget, coordination with math, availability of computers, computer use, use of district tests for planning, and coordination with feeder schools.

8. Teachers indicated that 35% of class time was devoted to laboratory experiences where students worked individually or in pairs. This compared to 22% for the combined group.

9. The ACS/NSTA chemistry test median score for first year chemistry students was 29 compared to 35 for the district.

10. The AAPT/NSTA physics test median was 28 compared to 32 for the district.

5/HS/NP
TD:4

ORANGE COUNTY PUBLIC SCHOOLS
1983-84 SCIENCE PROFILE
WINTER PARK HIGH SCHOOL

NOTE: All data except test data were collected at the end of the first quinmester, 1983

NUMBER OF TEACHERS

Science Total 14 Biology 9 Chemistry 3 Physics 1 General Science 1
Physical Science 1 Earth Science 0 Teaching two different science subjects 1

Rank 3 9, 64 % Rank 2 5, 36 % Rank 1 or 1A 0, 0

Average Years Teaching Experience 12 First Year Teachers 1
Took at least 1 college science course in prior 5 years 9, 64 %
Took a science methods course at some time 14, 100%
Teaching One or More Classes Out-Of-Field (OOF) 2, 14 %

STUDENT ENROLLMENT, NUMBER OF CLASSES, AND NUMBER TAUGHT BY OOF TEACHERS

Total School Enroll 2202 % Minority 8 Science Unduplicated 1671, 76 %

	Enroll	% Total Sch Enroll	Classes	Avg Class Size	Classes by OOF Teachers	%	Students by OOF Teachers	%
All Science	1727	78	68	26	11	16	249	14
Biology	1012	46	40	25	0	0	0	0
Chemistry	378	17	14	27	5	36	126	0
Physics	166	8	6	28	0	0	0	0
Gen. Sci.	123	6	6	21	6	100	123	100
Phy. Sci.	48	2	2	24	0	0	0	0
Earth Sci.	0	0	0	0	0	0	0	0

Advanced Placement Biology 0 Advanced Placement Chemistry 12

TEST SCORES - May, 1984

ACS/NSTA Chemistry Median 38 AAPT/NSTA Physics Median 34

PERCEPTIONS OF TEACHERS AND PRINCIPAL AS RECORDED DURING INTERVIEWS

Strengths (most frequently mentioned)

1 Prepared, dedicated, cooperative teachers
2 Facilities, equipment
3 Students, enthusiastic and prepared in sci
4 Courses for non-science oriented students
5 Media

Needs (most frequently mentioned)

1 Clarification of course offerings
2 More challenge and flexibility for adv students
3 More time for labs (2 hr block)
4 Increased computer accessibility
5 Textbook for low ability students
6 Reduced load for science teachers

Highest Rated Questionnaire Items (teachers)

1 Chairperson
2 Library acquisitions
3 Classroom facilities
4 Textbooks
5 Class discipline
6 Lab discipline
7 Teacher preparation
8 Teacher satisfaction

Lowest Rated Questionnaire Items (teachers)

1 Coordination with math
2 Involvement with budget development
3 Involvement with teacher selection
4 Availability of computers
5 Computer use
6 Helping parents become aware
7 Coordination with feeder schools
8 Required reading beyond textbook
9 Planning time

5/TD
WP/SR/H
6/6/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WINTER PARK HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	4.50	6.0
07	Laboratories	4.25	14.0
08	Equipment	4.00	20.5
09	Supplies	4.25	14.0
10	Safety Knowledge	4.00	20.5
11	Textbooks	4.50	6.0
12	Manuals	4.33	10.0
13	Resources	3.50	31.5
14	Media	3.75	26.5
15	Avail Computers	1.67	53.0
16	Computer Use	2.00	50.0
17	Community in Class	2.75	42.0
18	Extend Prog to Comm	2.33	45.5
19	Parents aware	2.00	50.0
23	Career Opportunities	3.25	35.5
24	Prep for Future in Sc	4.25	14.0
25	Selecting Sci Courses	3.67	30.0
26	Objectives Awareness	4.25	14.0
27	Coor Between Schools	2.67	43.0
28	Coor with Math	1.33	55.0
29	Coor with Feeders	2.00	50.0
30	Lesson Plans and Inst	3.75	26.5
35	Homework	4.00	20.5
36	Manage Labs	4.25	14.0
37	Class Discipline	4.50	6.0
38	Lab Discipline	4.50	6.0
39	Involve in Clubs	2.33	45.5
40	Class Size	4.00	20.5
41	Lab Class Size	3.75	26.5
42	Library Research	3.00	39.5
43	Lab Skills	3.00	39.5
44	Textbook Skills	3.33	33.0
45	Student Enthusiasm	4.00	20.5
46	On Task in Class	4.00	20.5
47	On Task in Lab	3.00	39.5
48	Teacher Tests and Plans	3.25	35.5
49	Teach Tests and Advice	3.75	26.5
50	Required Reading	2.00	50.0
51	District Tests	2.33	45.5
52	Essay Questions	3.50	31.5
53	Graphs on Tests	3.25	35.5
54	Process Skills on Tests	3.75	26.5
55	Reporting Progress	3.00	39.5
60	Inservice	3.25	35.5
61	Chairperson	4.67	1.5
62	Science Coordinator	4.25	14.0
63	Teacher Preparation	4.50	6.0
64	Admin Support	3.75	26.5
65	Teacher Satisfaction	4.50	6.0
66	Teacher Selection	1.33	55.0
67	Textbook Selection	4.50	6.0
68	Library Acquisitions	4.67	1.5
69	Involve With Guidance	2.33	45.5
70	Planning Time	2.00	50.0
71	Developing Budget	1.33	55.0
72	Using Funds	4.25	14.0

S/TD
WP/SR/I
4/5/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WINTER PARK HIGH SCHOOL AVERAGE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
61	Chairperson	4.67	1.5
68	Library Acquisitions	4.67	1.5
06	Classrooms	4.50	6.0
11	Textbooks	4.50	6.0
37	Class Discipline	4.50	6.0
38	Lab Discipline	4.50	6.0
63	Teacher Preparation	4.50	6.0
65	Teacher Satisfaction	4.50	6.0
67	Textbook Selection	4.50	6.0
12	Manuals	4.33	10.0
07	Laboratories	4.25	14.0
09	Supplies	4.25	14.0
24	Prep for Future in Sci	4.25	14.0
26	Objectives Awareness	4.25	14.0
36	Manage Labs	4.25	14.0
62	Science Coordinator	4.25	14.0
72	Using Funds	4.25	14.0
08	Equipment	4.00	20.5
10	Safety Knowledge	4.00	20.5
35	Homework	4.00	20.5
40	Class Size	4.00	20.5
45	Student Enthusiasm	4.00	20.5
46	On Task in Class	4.00	20.5
14	Media	3.75	26.5
30	Lesson Plans and Inst	3.75	26.5
41	Lab Class Size	3.75	26.5
49	Teach Tests and Advice	3.75	26.5
54	Process Skills on Tests	3.75	26.5
64	Admin Support	3.75	26.5
25	Selecting Sci Courses	3.67	30.0
13	Resources	3.50	31.5
52	Essay Questions	3.50	31.5
44	Textbook Skills	3.33	33.0
23	Career Opportunities	3.25	35.5
48	Teacher Tests and Plans	3.25	35.5
53	Graphs on Tests	3.25	35.5
60	Inservice	3.25	35.5
42	Library Research	3.00	39.5
43	Lab Skills	3.00	39.5
47	On Task in Lab	3.00	39.5
55	Reporting Progress	3.00	39.5
17	Community in Class	2.75	42.0
27	Coor Between Schools	2.67	43.0
18	Extend Prog to Comm	2.33	45.5
39	Irvolve in Clubs	2.33	45.5
51	District Tests	2.33	45.5
69	Involve With Guidance	2.33	45.5
16	Computer Use	2.00	50.0
19	Parents aware	2.00	50.0
29	Coor with Feeders	2.00	50.0
50	Required Reading	2.00	50.0
70	Planning Time	2.00	50.0
15	Avail Computers	1.67	53.0
28	Coor with Math	1.33	55.0
66	Teacher Selection	1.33	55.0
71	Developing Budget	1.33	55.0

5/TD
WP/S/R
4/4/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
WINTER PARK HIGH SCHOOL RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	100	0	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	75	0	25
31	Are there established procedures for monitoring lesson plans?	25	75	0
32	Do you think that a science program for the gifted should be provided at your school?	75	25	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	75	25	0
34	Do you deal with curriculum scope and sequence in your planning?	75	25	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	50	50	0
58	Should common school-level exams for each subject be administered?	75	25	0
59	Should common district-level exams be administered?	100	0	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	21
83	Discussion, all students have some opportunity to talk.	6
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	6
86	Laboratory, students work individually or in pairs.	19
87	Films, filmstrips, TV.	10
88	Field trips.	1
89	Tests.	12
90	Deskwork, workbooks, and reading assignments.	13
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	3
93	Reports from students.	2
94	Other, please specify.	

WINTER PARK HIGH SCHOOL
NOTEWORTHY POINTS

1. Teachers, facilities and equipment, enthusiastic and capable students, courses for non-science oriented students, and media were mentioned by the principal and teachers interviewed as strengths of the science program.

2. Clarification of course offerings, challenge and flexibility for advanced students, time for labs, computer accessibility, textbooks for low ability students, and teacher work load were mentioned as areas of the science program in need of strengthening.

3. Of fourteen teachers who taught science, 36% held a Rank 2 or higher certificate compared to 55% for the combined group of high school science teachers.

4. One section of advanced placement chemistry was taught.

5. Teachers gave high ratings to the department chairperson, library acquisitions, classroom facilities, textbooks, class discipline, lab discipline, teacher preparation, and teacher satisfaction with assigned courses.

6. Teachers gave low ratings to coordination with math, involvement with the development of the budget, involvement with teacher selection, availability of computers, use of computers, helping parents become aware of science activities, coordination with feeder schools, required reading beyond the textbook, and planning time.

7. All teachers interviewed (100%) said that common district level exams should be administered.

8. Teachers indicated that 25% of class time was devoted to laboratory experiences where students worked individually or in pairs. This compared to 22% for the district.

9. The ACS/NSTA chemistry test median score for first year chemistry students was 38 compared to 35 for the district.

10. The AAPT/NSTA physics test median score was 34 compared to 32 for the district.

5/HS/NP
TD:4

APPENDIX E

MAJOR SUBJECT AREAS

DATA SUMMARIES

Contents for each subject:

Ratings and Ranks by Item

Ratings and Ranks by Rank

Teacher Response Percentages

Junior high school subjects:

Life Science..... 230

Physical Science..... 233

Earth Science..... 236

High school subjects:

Biology..... 239

Chemistry..... 242

Physics..... 245

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LIFE SCIENCE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.55	30.0
07	Laboratories	3.10	41.0
08	Equipment	3.20	37.0
09	Supplies	3.65	28.0
10	Safety Knowledge	4.45	6.0
11	Textbooks	3.85	23.0
12	Manuals	1.56	53.0
13	Resources	3.60	29.0
14	Media	4.05	19.0
15	Avail Computers	1.55	54.0
16	Computer Use	1.10	56.0
17	Community in Class	3.37	33.0
18	Extend Prog to Comm	3.25	36.0
19	Parents aware	3.15	39.0
23	Career Opportunities	3.70	26.5
24	Prep for Future in Sci	3.70	26.5
25	Selecting Sci Courses	3.83	24.0
26	Objectives Awareness	4.25	11.0
27	Coor Between Schools	2.67	46.0
28	Coor with Math	3.15	39.0
29	Coor with Feeders	2.13	50.0
30	Lesson Plans and Inst	4.60	3.5
35	Homework	4.15	16.0
36	Manage Labs	4.10	18.0
37	Class Discipline	4.30	10.0
38	Lab Discipline	4.40	7.5
39	Involve in Clubs	2.42	49.0
40	Class Size	2.90	42.0
41	Lab Class Size	2.74	45.0
42	Library Research	3.94	20.0
43	Lab Skills	3.35	34.5
44	Textbook Skills	3.50	31.0
45	Student Enthusiasm	3.80	25.0
46	On Task in Class	3.90	21.0
47	On Task in Lab	4.15	16.0
48	Teacher Tests and Plans	4.20	12.0
49	Teach Tests and Advice	4.15	16.0
50	Required Reading	2.75	44.0
51	District Tests	1.78	52.0
52	Essay Questions	3.15	39.0
53	Graphs on Tests	3.35	34.5
54	Process Skills on Tests	3.40	32.0
55	Reporting Progress	4.40	7.5
60	Inservice	2.65	47.5
61	Chairperson	4.47	5.0
62	Science Coordinator	4.17	13.5
63	Teacher Preparation	4.80	1.0
64	Admin Support	4.17	13.5
65	Teacher Satisfaction	4.60	3.5
66	Teacher Selection	1.44	55.0
67	Textbook Selection	4.79	2.0
68	Library Acquisitions	3.89	22.0
69	Involve With Guidance	2.89	43.0
70	Planning Time	2.65	47.5
71	Developing Budget	1.84	51.0
72	Using Funds	4.32	9.0

L/SC
5/TD/1
4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LIFE SCIENCE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
63	Teacher Preparation	4.80	1.0
67	Textbook Selection	4.79	2.0
30	Lesson Plans and Inst	4.60	3.5
65	Teacher Satisfaction	4.60	3.5
61	Chairperson	4.47	5.0
10	Safety Knowledge	4.45	6.0
38	Lab Discipline	4.40	7.5
55	Reporting Progress	4.40	7.5
[illegible]	Using Funds	4.32	9.0
37	Class Discipline	4.30	10.0
26	Objectives Awareness	4.25	11.0
48	Teacher Tests and Plans	4.20	12.0
62	Science Coordinator	4.17	13.5
64	Admin Support	4.17	13.5
35	Homework	4.15	16.0
47	On Task in Lab	4.15	16.0
49	Teach Tests and Advice	4.15	16.0
36	Manage Labs	4.10	18.0
14	Media	4.05	19.0
42	Library Research	3.94	20.0
46	On Task in Class	3.90	21.0
68	Library Acquisitions	3.89	22.0
11	Textbooks	3.85	23.0
25	Selecting Sci Courses	3.83	24.0
45	Student Enthusiasm	3.80	25.0
23	Career Opportunities	3.70	26.5
24	Prep for Future in Sci	3.70	26.5
09	Supplies	3.65	28.0
13	Resources	3.60	29.0
06	Classrooms	3.55	30.0
44	Textbook Skills	3.50	31.0
54	Process Skills on Tests	3.40	32.0
17	Community in Class	3.37	33.0
43	Lab Skills	3.35	34.5
53	Graphs on Tests	3.35	34.5
18	Extend Prog to Comm	3.25	36.0
08	Equipment	3.20	37.0
19	Parents Aware	3.15	39.0
28	Coor with Math	3.15	39.0
52	Essay Questions	3.15	39.0
07	Laboratories	3.10	41.0
40	Class Size	2.90	42.0
69	Involve With Guidance	2.89	43.0
50	Required Reading	2.75	44.0
41	Lab Class Size	2.74	45.0
27	Coor Between Schools	2.67	46.0
60	Inservice	2.65	47.5
70	Planning Time	2.65	47.5
39	Involve in Clubs	2.42	49.0
29	Coor with Feeders	2.13	50.0
71	Developing Budget	1.84	51.0
51	District Tests	1.78	52.0
12	Manuals	1.56	53.0
15	Avail Computers	1.55	54.0
66	Teacher Selection	1.14	55.0
16	Computer Use	1.10	56.0

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5/TD/1
4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
LIFE SCIENCE RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	80	10	10
21	Have you completed a safety training course?	25	75	0
22	Does science get a fair share of available funds at this school?	60	20	20
31	Are there established procedures for monitoring lesson plans?	75	25	0
32	Do you think that a science program for the gifted should be provided at you school?	75	25	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	90	0	10
34	Do you deal with curriculum scope and sequence in your planning?	95	5	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	10	90	0
58	Should common school-level exams for each subject be administered?	35	60	5
59	Should common district-level exams be administered?	55	35	10

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ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	12
83	Discussion, all students have some opportunity to talk.	11
84	Recitation, students respond to teacher questions or assignments.	10
85	Demonstrations, teachers or students use concrete materials to illustrate points.	9
86	Laboratory, students work individually or in pairs.	18
87	Films, filmstrips, TV.	8
88	Field trips.	1
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	13
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	4
93	Reports from students.	3
94	Other, please specify.	0

5/TD
L/S/RP
4/18/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
PHYSICAL SCIENCE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.77	22.5
07	Laboratories	2.82	42.5
08	Equipment	2.82	42.5
09	Supplies	3.00	37.5
10	Safety Knowledge	4.19	11.5
11	Textbooks	3.18	34.0
12	Manuals	2.86	41.0
13	Resources	2.63	46.0
14	Media	3.65	25.5
15	Avail Computers	2.20	51.0
16	Computer Use	1.47	54.0
17	Community in Class	2.38	49.0
18	Extend Prog to Comm	2.29	50.0
19	Parents aware	3.00	37.5
23	Career Opportunities	3.77	22.5
24	Prep for Future in Sci	3.82	20.5
25	Selecting Sci Courses	4.55	3.0
26	Objectives Awareness	4.59	2.0
27	Coor Between Schools	1.93	52.0
28	Coor with Math	3.20	35.0
29	Coor with Feeders	1.42	56.0
30	Lesson Plans and Inst	4.65	1.0
35	Homework	3.88	18.5
36	Manage Labs	4.29	9.0
37	Class Discipline	4.53	4.0
38	Lab Discipline	4.41	5.5
39	Involve in Clubs	2.50	48.0
40	Class Size	3.24	33.5
41	Lab Class Size	2.71	44.0
42	Library Research	3.29	31.0
43	Lab Skills	3.24	33.5
44	Textbook Skills	4.18	13.0
45	Student Enthusiasm	3.65	25.5
46	On Task in Class	3.94	17.0
47	On Task in Lab	3.82	20.5
48	Teacher Tests and Plans	3.63	27.0
49	Teach Tests and Advice	3.88	18.5
50	Required Reading	2.94	39.0
51	District Tests	2.87	40.0
52	Essay Questions	3.35	30.0
53	Graphs on Tests	3.47	29.0
54	Process Skills on Tests	4.12	14.0
55	Reporting Progress	4.00	15.5
60	Inservice	3.27	32.0
61	Chairperson	4.00	16.5
62	Science Coordinator	4.31	7.0
63	Teacher Preparation	4.29	9.0
64	Admin Support	4.29	9.0
65	Teacher Satisfaction	4.41	5.5
66	Teacher Selection	1.44	55.0
67	Textbook Selection	4.19	11.5
68	Library Acquisitions	3.71	24.0
69	Involve With Guidance	2.56	47.0
70	Planning Time	2.65	45.0
71	Developing Budget	1.80	53.0
72	Using Funds	3.59	28.0

F/SC
5/TD/1
4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
PHYSICAL SCIENCE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
30	Lesson Plans and Inst	4.65	1.0
26	Objectives Awareness	4.59	2.0
25	Selecting Sci Courses	4.55	3.0
37	Class Discipline	4.53	4.0
38	Lab Discipline	4.41	5.5
65	Teacher Satisfaction	4.41	5.5
62	Science Coordinator	4.31	7.0
36	Manage Labs	4.29	9.0
63	Teacher Preparation	4.29	9.0
64	Admin Support	4.29	9.0
10	Safety Knowledge	4.19	11.5
67	Textbook Selection	4.19	11.5
44	Textbook Skills	4.18	13.0
54	Process Skills on Tests	4.12	14.0
55	Reporting Progress	4.00	15.5
61	Chairperson	4.00	15.5
46	On Task in Class	3.94	17.0
35	Homework	3.88	18.5
49	Teach Tests and Advice	3.88	18.5
24	Prep for Future in Sci	3.82	20.5
47	On Task in Lab	3.82	20.5
06	Classrooms	3.77	22.5
23	Career Opportunities	3.77	22.5
68	Library Acquisitions	3.71	24.0
14	Media	3.65	25.5
45	Student Enthusiasm	3.65	25.5
48	Teacher Tests and Plans	3.63	27.0
72	Using Funds	3.59	28.0
53	Graphs on Tests	3.47	29.0
52	Essay Questions	3.35	30.0
42	Library Research	3.29	31.0
60	Inservice	3.27	32.0
40	Class Size	3.24	33.5
43	Lab Skills	3.24	33.5
28	Coor with Math	3.20	35.0
11	Textbooks	3.18	36.0
09	Supplies	3.00	37.5
19	Parents aware	3.00	37.5
50	Required Reading	2.94	39.0
51	District Tests	2.87	40.0
12	Manuals	2.86	41.0
07	Laboratories	2.82	42.5
08	Equipment	2.82	42.5
41	Lab Class Size	2.71	44.0
70	Planning Time	2.65	45.0
13	Resources	2.63	46.0
69	Involve With Guidance	2.56	47.0
39	Involve in Clubs	2.50	48.0
17	Community in Class	2.38	49.0
18	Extend Prog to Comm	2.29	50.0
15	Avail Computers	2.20	51.0
27	Coor Between Schools	1.93	52.0
71	Developing Budget	1.80	53.0
16	Computer Use	1.47	54.0
66	Teacher Selection	1.44	55.0
29	Coor with Feeders	1.42	56.0

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4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
PHYSICAL SCIENCE RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	77	18	6
21	Have you completed a safety training course?	12	88	0
22	Does science get a fair share of available funds at this school?	77	18	6
31	Are there established procedures for monitoring lesson plans?	38	12	0
32	Do you think that a science program for the gifted should be provided at you school?	41	53	6
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	88	6	6
56	Are laboratory experiences evaluated and used to determine letter grades?	94	6	0
57	Are common school-level exams for each subject used in your school?	6	94	0
58	Should common school-level exams for each subject be administered?	35	53	12
59	Should common district-level exams be administered?	47	41	12

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ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	15
83	Discussion, all students have some opportunity to talk.	12
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	8
86	Laboratory, students work individually or in pairs.	22
87	Films, filmstrips, TV.	7
88	Field trips.	1
89	Tests.	7
90	Deskwork, workbooks, and reading assignments.	13
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	3
93	Reports from students.	3
94	Other, please specify.	1

5/TD
P/S/RP
4/18/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EARTH SCIENCE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.53	28.0
07	Laboratories	2.53	46.0
08	Equipment	3.42	29.0
09	Supplies	3.16	36.0
10	Safety Knowledge	3.84	18.0
11	Textbooks	3.68	24.0
12	Manuals	3.00	39.0
13	Resources	3.16	36.0
14	Media	3.90	15.0
15	Avail Computers	1.75	52.0
16	Computer Use	1.33	56.0
17	Community in Class	2.58	44.5
18	Extend Prog to Comm	2.79	40.0
19	Parents aware	3.16	36.0
23	Career Opportunities	3.95	12.0
24	Prep for Future in Sci	4.26	6.0
25	Selecting Sci Courses	3.39	32.0
26	Objectives Awareness	4.53	1.0
27	Coor Between Schools	2.21	49.0
28	Coor with Math	2.22	48.0
29	Coor with Feeders	1.56	54.0
30	Lesson Plans and Inst	4.42	2.5
35	Homework	3.68	11.0
36	Manage Labs	3.79	21.5
37	Class Discipline	4.21	9.0
38	Lab Discipline	4.22	7.0
39	Involve in Clubs	1.74	53.0
40	Class Size	2.58	44.5
41	Lab Class Size	2.33	47.0
42	Library Research	3.11	38.0
43	Lab Skills	3.17	34.0
44	Textbook Skills	3.63	27.0
45	Student Enthusiasm	3.42	30.5
46	On Task in Class	3.90	15.0
47	On Task in Lab	3.94	13.0
48	Teacher Tests and Plans	3.68	24.0
49	Teach Tests and Advice	3.90	15.0
50	Required Reading	2.72	42.0
51	District Tests	1.81	51.0
52	Essay Questions	3.67	26.0
53	Graphs on Tests	4.00	11.0
54	Process Skills on Tests	4.21	9.0
55	Reporting Progress	3.79	21.5
60	Inservice	3.35	33.0
61	Chairperson	4.21	9.0
62	Science Coordinator	3.83	20.0
63	Teacher Preparation	4.32	4.0
64	Admin Support	3.84	18.0
65	Teacher Satisfaction	4.42	2.5
66	Teacher Selection	1.39	55.0
67	Textbook Selection	4.29	5.0
68	Library Acquisitions	3.44	28.0
69	Involve With Guidance	2.67	43.0
70	Planning Time	2.74	41.0
71	Developing Budget	1.89	50.0
72	Using Funds	3.84	18.0

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4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EARTH SCIENCE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
26	Objectives Awareness	4.53	1.0
30	Lesson Plans and Inst	4.42	2.5
65	Teacher Satisfaction	4.42	2.5
63	Teacher Preparation	4.32	4.0
67	Textbook Selection	4.29	5.0
24	Prep for Future in Sci	4.26	6.0
38	Lab Discipline	4.22	7.0
37	Class Discipline	4.21	9.0
54	Process Skills on Tests	4.21	9.0
61	Chairperson	4.21	9.0
53	Graphs on Tests	4.00	11.0
23	Career Opportunities	3.95	12.0
47	On Task in Lab	3.94	13.0
14	Media	3.90	15.0
46	On Task in Class	3.90	15.0
49	Teach Tests and Advice	3.90	15.0
10	Safety Knowledge	3.84	18.0
64	Admin Support	3.84	18.0
72	Using Funds	3.84	18.0
62	Science Coordinator	3.83	20.0
36	Manage Labs	3.79	21.5
55	Reporting Progress	3.79	21.5
11	Textbooks	3.68	24.0
35	Homework	3.68	24.0
48	Teacher Tests and Plans	3.68	24.0
52	Essay Questions	3.67	26.0
44	Textbook Skills	3.63	27.0
06	Classrooms	3.53	28.0
68	Library Acquisitions	3.44	29.0
08	Equipment	3.42	30.5
45	Student Enthusiasm	3.42	30.5
25	Selecting Sci Courses	3.39	32.0
60	Inservice	3.35	33.0
43	Lab Skills	3.17	34.0
09	Supplies	3.16	36.0
13	Resources	3.16	36.0
19	Parents aware	3.16	36.0
42	Library Research	3.11	38.0
12	Manuals	3.00	39.0
18	Extend Prog to Comm	2.79	40.0
70	Planning Time	2.74	41.0
50	Required Reading	2.72	42.0
69	Involve With Guidance	2.67	43.0
17	Community in Class	2.58	44.5
40	Class Size	2.58	44.5
07	Laboratories	2.53	46.0
41	Lab Class Size	2.33	47.0
28	Coor with Math	2.22	48.0
27	Coor Between Schools	2.21	49.0
71	Developing Budget	1.89	50.0
51	District Tests	1.81	51.0
15	Avail Computers	1.75	52.0
39	Involve in Clubs	1.74	53.0
29	Coor with Feeders	1.56	54.0
66	Teacher Selection	1.39	55.0
16	Computer Use	1.33	56.0

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4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
EARTH SCIENCE RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	79	16	5
21	Have you completed a safety training course?	47	53	0
22	Does science get a fair share of available funds at this school?	68	11	21
31	Are there established procedures for monitoring lesson plans?	79	21	0
32	Do you think that a science program for the gifted should be provided at you school?	63	26	11
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	90	11	0
34	Do you deal with curriculum scope and sequence in your planning?	90	5	5
56	Are laboratory experiences evaluated and used to determine letter grades?	90	11	0
57	Are common school-level exams for each subject used in your school?	11	90	0
58	Should common school-level exams for each subject be administered?	58	37	5
59	Should common district-level exams be administered?	68	32	0

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ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	14
83	Discussion, all students have some opportunity to talk.	12
84	Recitation, students respond to teacher questions or assignments.	11
85	Demonstrations, teachers or students use concrete materials to illustrate points.	8
86	Laboratory, students work individually or in pairs.	17
87	Films, filmstrips, TV.	7
88	Field trips.	1
89	Tests.	8
90	Deskwork, workbooks, and reading assignments.	13
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	5
93	Reports from students.	3
94	Other, please specify.	1

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E/S/RP
4/18/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
BIOLOGY SCIENCE RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.80	24.0
07	Laboratories	3.50	35.0
08	Equipment	3.20	38.5
09	Supplies	3.70	30.0
10	Safety Knowledge	4.20	5.5
11	Textbooks	4.20	5.5
12	Manuals	4.00	16.0
13	Resources	3.70	30.0
14	Media	4.10	12.0
15	Avail Computers	1.70	54.5
16	Computer Use	1.70	54.5
17	Community in Class	3.80	24.0
18	Extend Prog to Comm	3.00	42.5
19	Parents aware	3.60	33.0
23	Career Opportunities	4.20	5.5
24	Prep for Future in Sci	4.10	12.0
25	Selecting Sci Courses	3.80	24.0
26	Objectives Awareness	4.20	5.5
27	Coor Between Schools	2.10	51.0
28	Coor with Math	1.67	56.0
29	Coor with Feeders	2.44	49.0
30	Lesson Plans and Inst	4.00	16.0
35	Homework	3.80	24.0
36	Manage Labs	4.10	12.0
37	Class Discipline	4.20	5.5
38	Lab Discipline	4.20	5.5
39	Involve in Clubs	3.10	40.0
40	Class Size	3.20	38.5
41	Lab Class Size	3.00	42.5
42	Library Research	3.00	42.5
43	Lab Skills	2.80	46.0
44	Textbook Skills	3.60	33.0
45	Student Enthusiasm	3.70	30.0
46	On Task in Class	3.80	24.0
47	On Task in Lab	3.90	19.0
48	Teacher Tests and Plans	3.80	24.0
49	Teach Tests and Advice	3.80	24.0
50	Required Reading	2.90	45.0
51	District Tests	2.10	51.0
52	Essay Questions	3.80	24.0
53	Graphs on Tests	3.00	42.5
54	Process Skills on Tests	3.40	36.0
55	Reporting Progress	3.60	33.0
60	Inservice	3.40	36.5
61	Chairperson	4.00	16.0
62	Science Coordinator	4.20	5.5
63	Teacher Preparation	4.40	1.0
64	Admin Support	3.80	24.0
65	Teacher Satisfaction	4.00	16.0
66	Teacher Selection	2.10	51.0
67	Textbook Selection	4.11	10.0
68	Library Acquisitions	4.00	16.0
69	Involve With Guidance	2.70	47.0
70	Planning Time	2.60	48.0
71	Developing Budget	1.90	53.0
72	Using Funds	4.20	5.5

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4/27/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
BIOLOGY SCIENCE RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
63	Teacher Preparation	4.40	1.0
10	Safety Knowledge	4.20	5.5
11	Textbooks	4.20	5.5
23	Career Opportunities	4.20	5.5
26	Objectives Awareness	4.20	5.5
37	Class Discipline	4.20	5.5
38	Lab Discipline	4.20	5.5
62	Science Coordinator	4.20	5.5
72	Using Funds	4.20	5.5
67	Textbook Selection	4.11	10.0
14	Media	4.10	12.0
24	Prep for Future in Sci	4.10	12.0
36	Manage Labs	4.10	12.0
12	Manuals	4.00	16.0
30	Lesson Plans and Inst	4.00	16.0
61	Chairperson	4.00	16.0
65	Teacher Satisfaction	4.00	16.0
68	Library Acquisitions	4.00	16.0
47	On Task in Lab	3.90	19.0
06	Classrooms	3.80	24.0
17	Community in Class	3.80	24.0
25	Selecting Sci Courses	3.80	24.0
35	Homework	3.80	24.0
46	On Task in Class	3.80	24.0
48	Teacher Tests and Plans	3.80	24.0
49	Teach Tests and Advice	3.80	24.0
52	Essay Questions	3.80	24.0
64	Admin Support	3.80	24.0
09	Supplies	3.70	30.0
13	Resources	3.70	30.0
45	Student Enthusiasm	3.70	30.0
19	Parents aware	3.60	33.0
44	Textbook Skills	3.60	33.0
55	Reporting Progress	3.60	33.0
07	Laboratories	3.50	35.0
54	Process Skills on Tests	3.40	36.5
60	Inservice	3.40	36.5
08	Equipment	3.20	38.5
40	Class Size	3.20	38.5
39	Involve in Clubs	3.10	40.0
18	Extend Prog to Comm	3.00	42.5
41	Lab Class Size	3.00	42.5
42	Library Research	3.00	42.5
53	Graphs on Tests	3.00	42.5
50	Required Reading	2.90	45.0
43	Lab Skills	2.80	46.0
69	Involve With Guidance	2.70	47.0
70	Planning Time	2.60	48.0
29	Coor with Feeders	2.44	49.0
27	Coor Between Schools	2.10	51.0
51	District Tests	2.10	51.0
66	Teacher Selection	2.10	51.0
71	Developing Budget	1.90	53.0
15	Avail Computers	1.70	54.5
16	Computer Use	1.70	54.5
28	Coor with Math	1.67	56.0

B/SC/R
5/TD/1
4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
BIOLOGY RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	90	10	0
21	Have you completed a safety training course?	0	100	0
22	Does science get a fair share of available funds at this school?	60	20	20
31	Are there established procedures for monitoring lesson plans?	90	10	0
32	Do you think that a science program for the gifted should be provided at you school?	60	30	10
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	90	10	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	20	80	0
58	Should common school-level exams for each subject be administered?	70	20	10
59	Should common district-level exams be administered?	70	20	10

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	25
83	Discussion, all students have some opportunity to talk.	13
84	Recitation, students respond to teacher questions or assignments.	8
85	Demonstrations, teachers or students use concrete materials to illustrate points.	5
86	Laboratory, students work individually or in pairs.	19
87	Films, filmstrips, TV.	6
88	Field trips.	1
89	Tests.	9
90	Deskwork, workbooks, and reading assignments.	7
91	Outside speakers, either lecture or demonstration.	2
92	Small group work.	3
93	Reports from students.	2
94	Other, please specify.	1

5/TD
Bio/RP
4/18/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CHEMISTRY RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.78	14.0
07	Laboratories	3.44	28.0
08	Equipment	3.44	28.0
09	Supplies	3.33	32.0
10	Safety Knowledge	4.11	10.5
11	Textbooks	3.67	19.0
12	Manuals	4.13	9.0
13	Resources	3.1[illegible]	34.0
14	Media	3.56	23.0
15	Avail Computers	1.22	55.5
16	Computer Use	1.22	55.5
17	Community in Class	2.11	46.5
18	Extend Prog to Comm	2.33	43.5
19	Parents aware	1.88	49.0
23	Career Opportunities	3.78	14.0
24	Prep for Future in Sci	3.67	19.0
25	Selecting Sci Courses	3.56	23.0
26	Objectives Awareness	4.44	4.0
27	Coor Between Schools	1.78	51.5
28	Coor with Math	2.11	46.5
29	Coor with Feeders	1.86	50.0
30	Lesson Plans and Inst	4.11	10.5
35	Homework	4.33	6.0
36	Manage Labs	4.56	1.5
37	Class Discipline	4.22	7.0
38	Lab Discipline	4.44	4.0
39	Involve in Clubs	2.67	40.0
40	Class Size	3.44	28.0
41	Lab Class Size	3.11	34.0
42	Library Research	2.78	38.5
43	Lab Skills	3.11	34.0
44	Textbook Skills	3.00	36.5
45	Student Enthusiasm	3.56	23.0
46	On Task in Class	3.78	14.0
47	On Task in Lab	3.78	14.0
48	Teacher Tests and Plans	3.44	28.0
49	Teach Tests and Advice	3.44	28.0
50	Required Reading	2.22	45.0
51	District Tests	1.56	54.0
52	Essay Questions	2.44	41.5
53	Graphs on Tests	3.44	28.0
54	Process Skills on Tests	3.78	14.0
55	Reporting Progress	2.78	38.5
60	Inservice	2.44	41.5
61	Chairperson	4.17	8.0
62	Science Coordinator	3.63	21.0
63	Teacher Preparation	4.44	4.0
64	Admin Support	3.00	36.5
65	Teacher Satisfaction	4.56	1.5
66	Teacher Selection	1.67	53.0
67	Textbook Selection	3.44	28.0
68	Library Acquisitions	3.75	17.0
69	Involve With Guidance	2.33	43.5
70	Planning Time	2.00	48.0
71	Developing Budget	1.78	51.5
72	Using Funds	3.67	19.0

5/TD/1
C/Sc
4/27/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CHEMISTRY RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
36	Manage Labs	4.56	1.5
65	Teacher Satisfaction	4.56	1.5
26	Objectives Awareness	4.44	4.0
38	Lab Discipline	4.44	4.0
63	Teacher Preparation	4.44	4.0
35	Homework	4.33	6.0
37	Class Discipline	4.22	7.0
61	Chairperson	4.17	8.0
12	Manuals	4.13	9.0
10	Safety Knowledge	4.11	10.5
30	Lesson Plans and Inst	4.11	10.5
06	Classrooms	3.78	14.0
23	Career Opportunities	3.78	14.0
46	On Task in Class	3.78	14.0
47	On Task in Lab	3.78	14.0
54	Process Skills on Tests	3.78	14.0
68	Library Acquisitions	3.75	17.0
11	Textbooks	3.67	19.0
24	Prep for Future in Sci	3.67	19.0
72	Using Funds	3.67	19.0
62	Science Coordinator	3.63	21.0
14	Media	3.56	23.0
25	Selecting Sci Courses	3.56	23.0
45	Student Enthusiasm	3.56	23.0
07	Laboratories	3.44	28.0
08	Equipment	3.44	28.0
40	Class Size	3.44	28.0
48	Teacher Tests and Plans	3.44	28.0
49	Teach Tests and Advice	3.44	28.0
53	Graphs on Tests	3.44	28.0
67	Textbook Selection	3.44	28.0
09	Supplies	3.33	32.0
13	Resources	3.11	34.0
41	Lab Class Size	3.11	34.0
43	Lab Skills	3.11	34.0
44	Textbook Skills	3.00	36.5
64	Admin Support	3.00	36.5
42	Library Research	2.78	38.5
55	Reporting Progress	2.78	38.5
39	Involve in Clubs	2.67	40.0
52	Essay Questions	2.44	41.5
60	Inservice	2.44	41.5
18	Extend Prog to Comm	2.33	43.5
69	Involve With Guidance	2.33	43.5
50	Required Reading	2.22	45.0
17	Community in Class	2.11	46.5
28	Coor with Math	2.11	46.5
70	Planning Time	2.00	48.0
19	Parents aware	1.88	49.0
29	Coor with Feeders	1.86	50.0
27	Coor Between Schools	1.78	51.5
71	Developing Budget	1.78	51.5
66	Teacher Selection	1.67	53.0
51	District Tests	1.56	54.0
15	Avail Computers	1.22	55.5
16	Computer Use	1.22	55.5

C/SC/R
5/TD/1
4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
CHEMISTRY RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	67	33	0
21	Have you completed a safety training course?	22	78	0
22	Does science get a fair share of available funds at this school?	22	56	22
31	Are there established procedures for monitoring lesson plans?	67	33	0
32	Do you think that a science program for the gifted should be provided at you school?	67	22	11
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	89	11	0
34	Do you deal with curriculum scope and sequence in your planning?	89	11	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	33	67	0
58	Should common school-level exams for each subject be administered?	78	22	0
59	Should common district-level exams be administered?	89	11	0

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	25
83	Discussion, all students have some opportunity to talk.	11
84	Recitation, students respond to teacher questions or assignments.	6
85	Demonstrations, teachers or students use concrete materials to illustrate points.	5
86	Laboratory, students work individually or in pairs.	23
87	Films, filmstrips, TV.	3
88	Field trips.	1
89	Tests.	9
90	Deskwork, workbooks, and reading assignments.	9
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	7
93	Reports from students.	1
94	Other, please specify.	0

5/TD
Chem/RP
4/18/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
PHYSICS RATINGS AND RANKS

ORDERED BY ITEM FROM LOWEST TO HIGHEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
06	Classrooms	3.78	27.0
07	Laboratories	3.11	36.5
08	Equipment	2.44	43.0
09	Supplies	2.78	39.0
10	Safety Knowledge	4.22	16.0
11	Textbooks	4.33	10.5
12	Manuals	3.88	24.0
13	Resources	2.50	41.0
14	Media	2.22	46.5
15	Avail Computers	1.44	54.0
16	Computer Use	1.33	55.0
17	Communit, in Class	2.11	48.5
18	Extend Prog to Comm	2.22	46.5
19	Parents aware	2.38	45.0
23	Career Opportunities	4.22	16.0
24	Prep for Future in Sci	4.11	19.5
25	Selecting Sci Courses	4.22	16.0
26	Objectives Awareness	4.56	4.5
27	Coor Between Schools	3.38	32.0
28	Coor with Math	3.22	35.0
29	Coor with Feeders	1.83	51.0
30	Lesson Plans and Inst	4.44	7.0
35	Homework	4.44	7.0
36	Manage Labs	4.33	10.5
37	Class Discipline	4.89	1.5
38	Lab Discipline	4.78	3.0
39	Involve in Clubs	3.33	33.5
40	Class Size	3.89	23.0
41	Lab Class Size	3.44	31.0
42	Library Research	2.86	38.0
43	Lab Skills	3.33	33.5
44	Textbook Skills	3.78	27.0
45	Student Enthusiasm	3.78	27.0
46	On Task in Class	4.22	16.0
47	On Task in Lab	4.00	21.5
48	Teacher Tests and Plans	3.78	27.0
49	Teach Tests and Advice	4.00	21.5
50	Required Reading	2.11	48.5
51	District Tests	1.88	50.0
52	Essay Questions	2.44	43.0
53	Graphs on Tests	4.22	16.0
54	Process Skills on Tests	4.56	4.5
55	Reporting Progress	2.67	40.0
60	Inservice	2.44	43.0
61	Chairperson	4.25	13.0
62	Science Coordinator	4.11	19.5
63	Teacher Preparation	4.44	7.0
64	Admin Support	3.78	27.0
65	Teacher Satisfaction	4.89	1.5
66	Teacher Selection	1.11	56.0
67	Textbook Selection	4.33	10.5
68	Library Acquisitions	4.33	10.5
69	Involve With Guidance	3.11	36.5
70	Planning Time	1.56	52.5
71	Developing Budget	1.56	52.5
72	Using Funds	3.67	30.0

5/TD/1
PH/Sc
4/27/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
PHYSICS RATINGS AND RANKS

ORDERED BY RANK FROM HIGHEST TO LOWEST

Item	TOPIC	AVERAGE 1 Lo-5 Hi	RANK
37	Class Discipline	4.89	1.5
65	Teacher Satisfaction	4.89	1.5
38	Lab Discipline	4.78	3.0
26	Objectives Awareness	4.56	4.5
54	Process Skills on Tests	4.56	4.5
30	Lesson Plans and Inst	4.44	7.0
35	Homework	4.44	7.0
63	Teacher Preparation	4.44	7.0
11	Textbooks	4.33	10.5
36	Manage Labs	4.33	10.5
67	Textbook Selection	4.33	10.5
68	Library Acquisitions	4.33	10.5
61	Chairperson	4.25	13.0
10	Safety Knowledge	4.22	16.0
23	Career Opportunities	4.22	16.0
25	Selecting Sci Courses	4.22	16.0
46	On Task in Class	4.22	16.0
53	Graphs on Tests	4.22	16.0
24	Prep for Future in Sci	4.11	19.5
62	Science Coordinator	4.11	19.5
47	On Task in Lab	4.00	21.5
49	Teach Tests and Advice	4.00	21.5
40	Class Size	3.89	23.0
12	Manuals	3.88	24.0
06	Classrooms	3.78	27.0
44	Textbook Skills	3.78	27.0
45	Student Enthusiasm	3.78	27.0
48	Teacher Tests and Plans	3.78	27.0
64	Admin Support	3.78	27.0
72	Using Funds	3.67	30.0
41	Lab Class Size	3.44	31.0
27	Coor Between Schools	3.38	32.0
39	Involve in Clubs	3.33	33.5
43	Lab Skills	3.33	33.5
28	Coor with Math	3.22	35.0
07	Laboratories	3.11	36.5
69	Involve With Guidance	3.11	36.5
42	Library Research	2.86	38.0
09	Supplies	2.78	39.0
55	Reporting Progress	2.67	40.0
13	Resources	2.50	41.0
08	Equipment	2.44	43.0
52	Essay Questions	2.44	43.0
60	Inservice	2.44	43.0
19	Parents aware	2.38	45.0
14	Media	2.22	46.5
18	Extend Prog to Comm	2.22	46.5
17	Community in Class	2.11	48.5
50	Required Reading	2.11	48.5
51	District Tests	1.88	50.0
29	Coor with Feeders	1.83	51.0
70	Planning Time	1.56	52.5
71	Developing Budget	1.56	52.5
15	Avail Computers	1.44	54.0
16	Computer Use	1.33	55.0
66	Teacher Selection	1.11	56.0

PH/SC/R
5/TD/1
4/26/84

ORANGE COUNTY PUBLIC SCHOOLS
SECONDARY SCIENCE PROGRAM
TEACHER INTERVIEW QUESTIONNAIRE RESULTS
PHYSICS RESPONSE PERCENTAGES

ITEM	QUESTIONS	PERCENTAGES YES	NO	UN
20	Do science facilities and equipment at your school meet safety standards?	78	22	0
21	Have you completed a safety training course?	22	78	0
22	Does science get a fair share of available funds at this school?	33	33	33
31	Are there established procedures for monitoring lesson plans?	67	33	0
32	Do you think that a science program for the gifted should be provided at you school?	56	44	0
33	Are the content, skills, and competencies of the curriculum guide taught in the classroom and the laboratory?	100	0	0
34	Do you deal with curriculum scope and sequence in your planning?	100	0	0
56	Are laboratory experiences evaluated and used to determine letter grades?	100	0	0
57	Are common school-level exams for each subject used in your school?	78	11	11
58	Should common school-level exams for each subject be administered?	100	0	0
59	Should common district-level exams be administered?	78	11	11

* *

ITEM	CLASSROOM ACTIVITIES	AVG. % TIME
82	Lecture, where the teacher does most of the talking.	17
83	Discussion, all students have some opportunity to talk.	16
84	Recitation, students respond to teacher questions or assignments.	10
85	Demonstrations, teachers or students use concrete materials to illustrate points.	6
86	Laboratory, students work individually or in pairs.	23
87	Films, filmstrips, TV.	4
88	Field trips.	1
89	Tests.	9
90	Deskwork, workbooks, and reading assignments.	8
91	Outside speakers, either lecture or demonstration.	1
92	Small group work.	5
93	Reports from students.	1
94	Other, please specify.	1

5/TD
Phy/RP
4/18/84

APPENDIX F
PRINCIPAL INTERVIEW SCHEDULE (QUESTIONNAIRE)

SECONDARY SCIENCE PROGRAM EVALUATION

School _____

1. In your opinion, what are the strengths of the science program at your school? Why? _____

2. What aspects of the science program do you think need strengthening? Why?

3. Would you like to offer suggestions for strengthening the science program?

4. What procedures do you find successful in monitoring science activities at your school (e.g. do you review lessons plans, visit classrooms)?

5. What opportunities, if any, does the RAISE Bill offer for bettering science programs at your school or in the district? _____

6. What school-level or district-level science courses, programs, activities, or events do you consider outstanding or exemplary? Why? _____

5/App/F
TD:4

APPENDIX G
TEACHER INTERVIEW SCHEDULE (QUESTIONNAIRE)

SECONDARY SCIENCE PROGRAM EVALUATION

1. School _____ ____ ____ ____ ____

2. Years Experience Teaching Science_____ ____ ____

3. Subject _____ ____ ____

4. Laboratory _____ 1 2

5. Department Chairperson _____ 1 2

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6. Science Classroom Facilities at your school 1 2 3 4 5 U

7. Science Laboratory Facilities at your school 1 2 3 4 5 U

8. Quality and amount of science equipment at your school 1 2 3 4 5 U

9. Science supplies (e.g. chemicals and glassware) at your school 1 2 3 4 5 U

10. Your knowledge of proper safety procedures (e.g. chemical storage, use of goggles) 1 2 3 4 5 U

11. Appropriateness of testbooks (e.g. reading level) for your students 1 2 3 4 5 U

12. Appropriateness of laboratory manuals 1 2 3 4 5 U

13. Availability of resources such as magazines, newspapers, graphs and charts 1 2 3 4 5 U

14. Appropriateness and availability of media such as films, filmstrips, and TV cassettes 1 2 3 4 5 U

15. Availability of computers 1 2 3 4 5 U

5/App/G
TD:4

16. Use of computers 1 2 3 4 5 U

17. Use of community resources and community members in the classroom 1 2 3 4 5 U

18. Extending programs into the community by field trips and fairs 1 2 3 4 5 U

19. Helping parents become aware of science opportunities, activities and events at your school and in the district 1 2 3 4 5 U

20. Do science facilities and equipment at your school meet safety standards? Yes _____ No _____ 1 2 U

21. Have you completed a safety training course? Yes __ No__ 1 2 U

22. Does science get a fair share of available funds at this school? Yes _____ No _____ 1 2 U

23. Science courses help students become aware of career opportunities in science and build interest in science 1 2 3 4 5 U

24. Science courses prepare students for the future in science and technology 1 2 3 4 5 U

25. Students receive the information necessary to make sound decisions about selecting science courses 1 2 3 4 5 U

26. Students are made aware of the objectives they are to achieve in their science courses 1 2 3 4 5 U

27. Science programs at this school are coordinated with science programs at other schools 1 2 3 4 5 U

28. Science programs at this school are coordinated with math programs 1 2 3 4 5 U

29. Science programs at this school are coordinated with science programs at feeder schools 1 2 3 4 5 U

30. Teacher lesson plans are used to guide instruction in science 1 2 3 4 5 U

31. Are there established procedures for monitoring lesson plans? 1 2 U

32. Do you think that a science program for the gifted should be provided at your school? 1 2 U

33. Are the content, skills and competencies of the curriculum guide taught in the classroom and the laboratory? 1 2 U

34. Do you deal with curriculum scope and sequence in your planning? 1 2 U

35. Appropriateness of science homework for students (e.g. the right amount, challenging, and relevant) 1 2 3 4 5 U

36. The management and organization of laboratory experiences 1 2 3 4 5 U

37. Discipline and the science classroom 1 2 3 4 5 U

38. Discipline in science lab 1 2 3 4 5 U

39. Involvement of students in out-of-class science activities such as clubs 1 2 3 4 5 U

40. Class size and the science classroom (conduciveness to learning) 1 2 3 4 5 U

41. Class size and the science laboratory (conduciveness to learning) 1 2 3 4 5 U

42. Students use of the library for doing science research 1 2 3 4 5 U

43. Students laboratory skills 1 2 3 4 5 U

44. Students use of textbooks 1 2 3 4 5 U

45. Students enthusiasm about science 1 2 3 4 5 U

46. Students staying on task in the science classroom 1 2 3 4 5 U

47. Students staying on task in the science laboratory 1 2 3 4 5 U

48. Extent to which feedback from teacher made tests or textbook tests is used in planning learning opportunities for students 1 2 3 4 5 U

49. Extent to which feedback from teacher made tests or textbook tests is used in advising and helping students progress in science 1 2 3 4 5 U

50. The amount of reading (in addition to textbooks) required of students 1 2 3 4 5 U

51. Extent to which state or district-wide administered tests are used in planning learning opportunities for students 1 2 3 4 5 U

52. Extent to which teacher made tests contain essay questions (questions requiring an answer of one sentence or more) 1 2 3 4 5 U

53. Extent to which teacher made tests contain items which use graphs, drawings, and tables 1 2 3 4 5 U

54. Extent to which teacher made tests contain items which measure skills such as interpretation of data, measuring, and inferring 1 2 3 4 5 U

55. Extent to which means other than report cards are used to report progress to parents (e.g. notes on homework, newsletters) 1 2 3 4 5 U

56. Are laboratory experiences evaluated and used to determine letter grades? 1 2 U

57. Are common school level exams for each subject used in your school? 1 2 U

58. Should common school level exams for each subject be administered? 1 2 U

59. Should common district level exams be administered? 1 2 U

60. The extent to which inservice education meets the needs of science teachers
1 2 3 4 5 U

61. Instructional help and support from science department chairperson (also information about special events) 1 2 3 4 5 U

62. Help and support from the district science coordinator (also information about special science activities) 1 2 3 4 5 U

63. Your preparation in science courses you have been assigned
1 2 3 4 5 U

64. Science instructional help and support from school administrators
1 2 3 4 5 U

65. Your satisfaction with the science courses you have been assigned
1 2 3 4 5 U

66. Your involvement in the selection of prospective science teachers
1 2 3 4 5 U

67. Your involvement in the selection of science textbooks 1 2 3 4 5 U

68. Your involvement in the acquisition of science books and materials for the library 1 2 3 4 5 U

69. Your involvement with guidance counselors in planning programs for students
1 2 3 4 5 U

70. The time you have to plan for laboratory experience and classroom activities 1 2 3 4 5 U

71. Your involvement with the development of the science budget at your school
1 2 3 4 5 U

72. Your involvement with using funds budgeted for science at your school
1 2 3 4 5 U

73. What specific course provisions have been made to serve the needs of the basic or low ability students? 1 2

74. What specific course provisions have been made to serve the needs of regular or average ability students? 1 2

75. What specific course provisions have been made to serve the needs of advanced or high ability students? 1 2

76. What part of the curriculum guide for your course do you find most useful? 1 2

77. What are some of the strengths of the science program at your school? Why? 1 2

78. What aspects of the science program at your school do you feel need strengthening? 1 2

79. What suggestions do you have for improving the science program at your school? Are you taking steps to improve the program or your courses? 1 2

80. What science plans, programs, courses, activities or events at your school, at other secondary schools in Orange County, or district-wide do you consider outstanding or exemplary? Why? 1 2

81. What suggestions do you have for using the new RAISE Bill for the betterment of the science program? 1 2

School _____ Subject _____

Please write the approximate % of total science class time over a quin which is devoted to each of the following: (Please write 0% next to activities which are not used, and use only whole number percentages. The total for all activities should equal 100%).

82. Lecture, where teacher does most of the talking. ___

83. Discussion, all students have some opportunity to talk ___

84. Recitation, students respond to teacher questions or assignments. ___

85. Demonstrations, teachers or students use concrete materials to illustrate points. ___

86. Laboratory, students work individually or in pairs. ___

87. Films, filmstrips, TV ___

88. Field trips ___

89. Tests ___

90. Desk work, workbooks, and reading assignments ___

91. Outside speakers, either lecture or demonstration. ___

92. Small group work ___

93. Reports from students ___

94. Other, please specify _____ ___

TOTAL 100%

5/App/G
TD:4